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No. 2199.—VOL. XLVII.

LONDON, SATURDAY, OCTOBER 13, 1877.

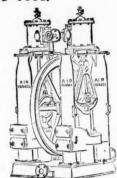
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A DIPLOMA-HIGHEST OF ALL AWARDS-given by the Geographical Congress, Paris, 1875-M. Favre, Contractor, having exhibited the McKean Drill alone as the Model Boring Machine for the St. GOTHARD TUNNEL.

SILVER MEDAL of the Highland and West of Scotland Agricultural Society, 1875-HIGHEST AWARD.

At the south end of the St. Gothard Tunnel, where

Are exclusively used, the advance made during eight consecutive weeks, ending February 7, was 24 90, 27 60, 24 80, 26 10, 28 30, 27 10, 28 40, 28 70 metres. Total advance of south heading during January was 121.30 metres, or 133 yards.

In a series of comparative trials made at the St. Gothard Tunnel, the McKean Rock Drill continued to work until the pressure was reduced to one-half atmosphere (71 lbs.), showing almost the entire motive force to be available for the blow against the rock-a result of itself indicating many advantages.

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These Machines possess many advantages, which give them a value unapproached by any other system of Boring Machine.

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The McKEAN ROCK DRILLS are the most powerful-the most portable—the most durable—the most compact—of the best mechanical device. They contain the fewest parts-have no weak parts-act without shock upon any of the operating parts-work with a lower pressure than any other Rock Drill-may be worked at a higher pressure than any other -may be run with safety to FIFTEEN HUNDRED STROKES PER MINUTE-do not require a mechanic to work them-are the smallest, shortest, and lightest of all machines-will give the longest feed without change of tool-work with long or short stroke at pleasure of operator.

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Requires only 20 lbs. steam or air-pressure.

Has only two moving parts—thus ensuring freedom from de-rangement, and is absolutely self-feeding.

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4.-THEY ARE THE ONLY MACHINES THAT MAKE THE ORE CLEAN FOR MARKET AT ONE OPERATION.

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and abroad—viz.,

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WASTE HEAPS, consisting of refuse chats and skimpings of a former washing, containing a mixture of lead, blende, and sulphur, DRESSED TO A PROFIT. ——

Mr. BAINBRIDGE, C. E., of the London Company's Mines, Middletons in-Teesdale, by Darlington, writing on the 20th March, 1876, says—"The yearly profit on our Santhead waste heaps amounted last year to 2600, tesides the smelhiery being occupied for some months in dressing ore stuff from the mines. Of course, if it had been wholly engaged in dressing wastes our returns would have been greater; but it is giving us every satisfaction, and bringing the waste heaps

Mr. T. B. STEWART, Manager of the Duke of Buccleuch's Mines. Wanlockhead, Abington, N. H., writing on 20th March, 1876, says—"I have much pleasure in stating thata full and superior set of your Ore Dressing Machinery has been at work at these mines for fully a month, and each day as the moving parts become smoother, and those in charge understand the working of the machinery better, it gives increasing satisfaction, the ore being dressed more quickly, cheaply, and satisfactorily than by any other method."

Mr. Bainbridge, speaking of machinery supplied Colberry Mines, says—"Your machinery saves fully one half on old wages, and vastly more on the wages we have now to pay. Over and above the saving in cost is the saving in ore, which is a .1 much short of 10 per cent."

GREE: SIDE MINE COMPANY, Patterdale, near Penrith, say-"The

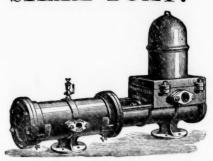
Mr. MONTAGUE BRALE says—"It will separate ore, however close e mechanical mixture, in such a way as no other machines can do."

Mr. C. Dodsworth says—"It is the very best for the purpose and will do for any kind of metallic ores—the very thing so long needed for dressing floors."

anecifications, and estimates will be forwarded on application a GEORGE GREEN, M.E., ABERYSTWITH SOUTH WALES.

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"It is a fact that, although there is a great variety of Direct-acting Steam Pumps exhibited, none that we have noticed worked so quietly as those of Messrs. Hayward Tyler and Co."

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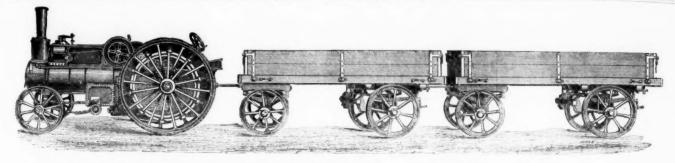
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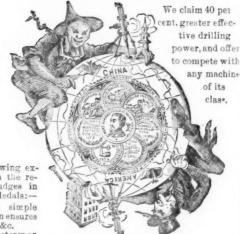
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Ingersoll."

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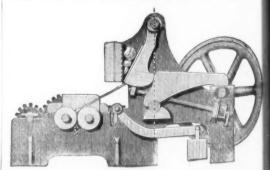
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MANUFACTURERS OF MARINE AND STATIONARY ENGINES; AND COLLIERY MACHINERY, CAGES, TUBS, &c., and every description of MACHINERY USED IN CHEMICAL WORKS.

### Original Correspondence.

THE COAL FIELDS OF SCOTLAND-No. II.

THE COAR and these coal fields was given in last week's all de-cription of these coal-cutter, I now proceed to give dails of the Gartsherrie coal-cutter, I now proceed to give formation and details regarding each coal field separately,

swing with—swing with—swing Research to the shires of Renfrew, Dumbarton, and studa small part of the shires of Renfrew, Dumbarton, and studa small part of the carboniferous strata of this district are vol-Amongs the carboniferous strata of this district are volAmongs it he carboniferous strata of this district are volAmongs in the control of the control o within this coal field. The Airdrie blackband was disc overed a within this coal field. The Airdrie blackband was disc overed by a left [80] by David Mushet, and is the highest in the peries, and the Ell coal; this bed of ironstone was 16 in. thick, and seattenively worked. It is noteworthy that some of the steady worked. It is noteworthy that some of the statement of the state

for any order of the short and the short at the short at the short and the short and the short and the short and the short at the short

olint coal... 2 Sto 3 O

gal Pits, about 1 mile from Bothwell Castle Pits, on the op-side of the Clyde, are being sunk also to the same beds of gent depth 160 fms. These pits are 23 ft. by 7 ft., and will allower fathoms reach the Splint seam, to which they are gik. The machinery at Bothwell Castle and Craigshead Pits age in size and principle as that erected at Bothwell Park its regards winding and pumping machinery, which I shall

gettle Park Colliery.—As already stated four workable of cal have been sunk through; the pits are 90 ft. apart, 30ft by 5½ ft., they are lined from top to bottom with 3-in. apleed horizontally, and strengthened by a civision in the this is the usual way of securing pits in the district. The mections comprise a winding-engine at each pit, each engine against horizontal cylinders, 5 ft. stroke, is direct acting, and controlled the pit in valves and conical drums 12 ft. the parties comprise a winding-engine at each pi, each engine agency horizontal cylinders, 5 ft. stroke, is direct acting, agency with slide valves, and conical drums, 12 ft. at the fine sensing 3 ft. in diameter at the last. These engines salely Mr. D. Barclay, of Kilmannock. The pumping-engine, has the downcast pit, has one 33-in. cylinder, 6 ft. stroke, masing; the piston works under the cylinder, 6 ft. stroke, the considerable of the piston works under the cylinder, 6 ft. stroke, masing; the piston works under the cylinder, 6 ft. stroke, the water by four 15-in bucket lifts of pumps, two lifts the ded to each bell-crank. There is a connect ng-rod to a salt in the opposite direction from the pit, which with a fly-galates the motion of the engine. An air compressor is at the top of each of the pits, with 22-inch steam cylinder, compressor, 5 ft. stroke, these are placed side by side, with salt and fly-wheel between their centre lines. The commands worked separately or together, the air being conlines 9-inch pipe placed in the upcast pit. The driving of the coal-cutters and the hauling underground is all effected season compressed air at 40 lbs, per square inch. This system massel air as a force for hauling, pumping, and mechanical selair as a force for hauling, pumping, and mechanical glaintended to be used entirely at the new collieries, snew era in coal mining; it will, no doubt, awaken the the mining world to the proce-dings of this company three colleries of Bothwell Park, Bothwell Castle, and lare all in operation on this principle. The winding-dompressors will be of the same type and dimensions later collieries as are those erected at Bothwell Park, ised daily at Bothwell Park is from 500 to 600 tons, by so lareshift on the deep two trams of 11 cwts, = 22 cwts, of coal teach lift on one deck. teach lift on one deck.

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sam is worked entirely on the longwall principle at the gate-roads are made 50 ft. apart from their centres, le is taken down along the gate roads and is used for lars of several feet in thickness on each side of them; pipin into one headway, and these again converge into by, which leads to the pit. No small coal is left underlike are four screens at the surface, which separate the mall coal; the former is used in the iron-smelting furliker for steam raising purposes at the works in and off. The longwall system is the most common in practice. elater for steam raising purposes at the works in and segment. The longwall system is the most common in practicitiet; a face of 300 to 400 yards continuous is usual. and pillar system is also in practice; for this system speculers are constructed by Messrs. Baird and Co. The workings are entirely on the longwall system. The exact of inostone daily is about 100 tons from one pit, and me times this quantity of shale is sent to the surface for the independent. for it underground.

gist district, on the northern edge of this coal field, set 29 co lieries, the output from each colliery varying some of these have only one, others a pts. The lowest series of coal and ironstone beds are at Kilsyth, which are, probably, 400 fms. or more that a Bothwell Park. There are three beds of the stone worked at Kilsyth and several saverage of coal. tone worked at Kilayth, and several seams of coal; in coal is from 3 to 4 ft. in thickness, and produces Messra Baird and Co. have erected at their Kilayth at 400 coking ovens, furnished with flues and tall chim-escape of gases, these were set to work about seven

errie" coal-cutter is intended to be used for ironstone ess. Young and Co. use two shale cutters at their oil the West Calder Oil Company have two, and the Uppany one shale cutter. Messrs, Merry and Cuninghame al cutters in use, John Hyslop one, Deans and Moore Cal Company six, Simpson and Co. (Lancashire) two, their works of their working for their working for a their working for a training the content of the content of their working for a training the content of the content of their working for a training the content of the content of their working for a training the content of the content of their working for a training the content of t generally for their

RE COAL FIELD.—This coal field is separated from when the coal field.—This coal field is separated from the west, whills of Devonian and trappean rocks, ranging the Stewarton, it has the sea coast on the west, edge near Dalry, and the southern near Dalmellington.

After the Ayrshire district are found.—

ACI Ena	3 4	34444	O CERCI	CIIC	P 188 0	LA PERE	ILL -		
Cawfordston coal	000	00-	F	eet :	in th	ickn	698	3	4
Tipofunt - 1	***	***		***	***	***		8	0
Large Stille	* * *		***	***				7	0
Mekhand	***	***	***					4	0
ELIMAR OF CLASS	ne		***				***	1	0
blackhand :-	mer(	us s	eries	are	four	nd			
			F	eet :	in th	ickn	088	0	10
la meraten coal			***			***		5	6
Illuson a COMI			***	***		***		4	0
Will floor Lit.		900			***	***	***	3	6
O COLO DINI	41	0.00						2	3
ich has bone in BEL	rat	the	base	of	the	carbo	onife	rou	s forma-
theeta and relevi	sted	in th	e hi	llan	hove	nau	neci 1	her	e are in-
hich has been elevi	of w	hins	tone	wh	ich b	AVA	mue	h h	roken un
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and deteriorated the coal seams. Igneous rocks are fount also between the coal measures and the New Red Sand-tone rocks, which overlie the coal field in its central part. The production of coal in Ayrshire in 1876 was 3.649.991 tons, from 112 colli-ries, equal to an average of 114 tons daily on 286 working days in a year.

The CLACKMANNAN COAL FIRLD may be considered as a portion of that of Lanarkshire, being separated from it by the Frith of Forth According to Mr. Geddes there are eight seams of coal found, varying from 2ft. 6in. to 5ft. and one seam of 9ft. in thickness, having an aggregate thickness of 33½ ft. There are also some bels o ironstone. The coal field is divided into three parts by two faults, one downthrow to south 410 yards, the other downthrow to south of 233 yards.

THE FIFESHIRE COAL FIELD is divided from that of Clackmann at by the upheaval of trap and carbonifer us rocks. The Fifeshir field ranges from Dusfermline to near St. Andrew's on the north field ranges from Dunfermline to near St. Andrew's on the north, forming a narrow irregular tract between this line and the Frith of Forth. The coal seams are much broken up by faults and igne us matter. Between Kirkcaldy and Pittenween the coal strata run under the sea, an I submarine coal is to some extent workel. It is probable some of the coal seams may extend under the Frith of Forth to the Lothian coal field on the opposite shore. In Fifeshire the upper and I ower series seem to approach near together; no less than 28 seams of coal are found ranging from I ft. 6 in. to 7 ft in thickness, and one—the Dysart Main seam—is 21 ft in thickness, making a total of 120 ft. of coal. These seams furnish coal suitable for iron smelting, gas making, smiths', and steam purposes, as well as some anthracite. ome anthracite

as some an inracite.

THE LOTHIAN COAL FIELD is bounded on the west by the Pentland Hills, an upheaval of igneous and carboniferous rocks. The coal field is divided into two troughs, the one in Edinburg-hire has its greatest depression nearly north and south, and runs through Dilkeith; the other or east-rn depression, is in Hilddington. The seams of coal extend to the Frith of Forth, and, as before observed, probably unite with the Fieshire coal field. The Lithian coal field in the western trough, is divided into three series—the true coal measures, 1220 feet, containing 11 seams, varying from 2 feet to 4 ft. 6 in., and an aggregate thickness of 38½ ft. Millstone grit, 340 feet; carboniferous series 1590 feet, containing 17 coal seams, ranging from 2 ft. 1 in. to 8 ft. in thickness, and an aggregate thickness of 57½ ft. of coal. There are several seams of less thickness than 2 ft., and nine bands of ironstone, most of which are thin. In the eastern, or Haddington trough, the coal strata belong silely to the lower or carbonif rous series, and can be identified in part with the carboniferous coals in the western trough. Nine coal seams are found in the Haddington side, ranging from 1 ft. 6 in. to 7 ft., with a total thickness of 31 ft. of coal. Below the coal strata the lower limestone in three beds occurs divided by sandstones and shale, this forms the boundary of the Haddington trough on the east and south, and also up the western trough. The LOTHIAN COAL FIELD is bounded on the west by the Pentforms the boundary of the Haddington trough on the east and south, and also on the west separates it from the western trough. The calciferous sandstones and beds of igneous rocks occur under the lower limestone.

#### ROCK-BORING MACHINERY-No. IX.

Early in the year 1866 Jordan and Dirlington commenced a series of experiments with their rock-boring machinery, and on Dec. 26, 1866, specified various mechanical devices for reciprocating and turning the piston and boring tool. The rotation of the borer was effected by a twist-bar and ratchet-wheel, now used one borer was effected by a twist-har and ratchet-wh-el, now used in several boring machines. In a second specification, dated Nov. 29, 1867, among other methods described and illustrated for improving rock-boring machines, two ratchet-wheels are shown, placed around the pi-ton-rod in frontof the boring cylinder. In the pi-ton-rod is a straight and spiral slot. The two ratchet-wheels engage in these slots, and by means of pawls ensure the permanent rotation of the tool. This arrangement has since been patented by other individuals. individuals.

Some of the machines were worked by means of an "hydraulic bar," and under high pre sures of water, but the movement of the water in each case failed to impart the requisite velocity to the pis-

water in each case failed to impart the requisite velocity to the piston, and hence the cutting action of the tool was unsatisfactory. Deering an able inventor of rock-boring machinery, notonly devised a variety of ingenious and valuable contrivances for simplifying and rendering boring apparatus more effective, but he devoted himself to the practical part of the subject with an intelligence and perseverance deserving sub-tantial reward. Without lengthly description and costly illustrations it would be impossible to present an adequate idea of Deering's labours; but for this purpose his numerous specifications may be consulted:—Dec. 13, 1865, No. 3218; Nov. 9, 1866, No. 2922; Jan. 7, 1867, No. 43; June 10, 1867, No. 1704; June 19, 1868, No. 1989; Sept. 26, 1868, No. 2965; Nov. 10, 1869, No. 3240. 1869, No. 3240.

1869, No. 3240.

Foun July 1 to Oct. 31, 1863, the 184 fm. level was driven at Tincroft by a Doring machine. The ground was "hard, very jointy, and vulpy throughout." The hand contract price, 20t. to 22t per fath m; the rate of speed with six men, 8 feet per month. The cost with the assistance of a boring machine, 17t. 18s. 7d. per function that of advance m rethan double that of hand labour; atthough the driving machines were of inconficient may be the reasest less than the property and inconficient may be the reasest less than the reasest les the driving machinery was of insufficient power, the general arrangements defective, and many days were lost in repairing the plant. Now that nine years have passed away, and the importance of employing rock-boring machinery in our Cornish mines is at last recognised, it may be well to reproduce the cost of the 12 fms, of ground referred to:—

Par fathors.

ims, of ground referred to:-				Per fathom.			
Candles	£ 2	18	6, or	£0	4	101	
Oil and waste	4	12	0,	0	7	8	
Guncotton, fuse, &c	17	16	2,	1	9	8	
Coal	23	7	4.	1	18	11	
Repair of air-pump	6	15	0.	0	11	3	
R-pair of boring machinery	1	5	0,	0	2	1	
Wear and tear of plant Wages—	20	13	4,	1	14	51	
Un lerground, 6 men and 2 boys	89	5	6.	7	8	91	
Surface, smith and 2 enginemen			11,	4	0	11	
		-					

Doring was of opinion that one machine well handled would drive ground three times as fast as it could be accomplished by hand-labouralone, that winzes for ventilating purposes could mostly be dis

Total .

... £215 0 9, £17 18 7

pen-ed with, and that exploratory levels might if desirable be driven further apart, conditions abundantly verified by the experience of others who have given practical attention to the subject.

A boring machine, invented by R. G. Ford, of Sandaurst, Victoria, about 1868, was patented in Eagland on Aug. 10, 1869. The following description of this machine is taken from Smyth's work on the "Gild Fields and Mineral Districts of Victoria:"—The motion of the tool is registrative, and the motive power, compressed air. of the tool is reciprocating, and the motive-power, compressed air or steam, applied at a pressure of about 60 lbs. per square inch. This pressure is constantly exerted on an annular area in front of the ornstantly exerted on an anular area in front of the piston, and intermittingly on the whole area of the back of the piston. The ports for the alternate admission of the pressure fluid and for the exhaut are opened and closed by a valve worked by a small piston. The air-ports and the movement of the valve areas arranged that the piston cannot strike the front and back of the cylinder. The rotation of the boring-tool is caused by the piston and working a ratchet and pawl around a cylinder attached to the front of the working cylinder, and as the piston reciprocate it carries itself around the cylinder, and as the piston reciprocate it carries itself around the cylinder, and makes a complete revolution every 21 blows, by which means the tool cuts a round hole. The fee its self advancing and self adjusting, effected by the working cylinder hear powered from turning by a pawl, which the piston strikes when it makes a full stroke—thus releasing the screw, and permitting the working cylinder for advance forwards as the hole increases in depth. The weight of blow struck by the piston under a pressure of 60 lbs, per square of the face; 4, stands are requisite for carrying the machines not only as a rigid support to keep the "bit" in line of the hole, but to add the rod of the piston-valve carries a pawl on its upper to stands are requisite for carrying the machines, not only as a rigid support to keep the "bit" in line of the hole, but to add the rod of the piston and piston-valve; the rod of the piston-valve carries a pawl on its upper piston, and intermittingly on the whole area of the back of the pis-

en i, which one ates on a ratchet-wheel, which wheel rotates a spinil- pas-ing through the end of the cylinder into the pistonheal, and produces the turning movement required. The weight of an Ostersamp machine, having a piston 3 in diameter, pistonheal 26 10ths in diameter, is 50 lbs.; weight of trippd stand, 56 lbs. The mechine bored a hole in coal sandstone 1½ in diameter, 8-10ths of an inch diego, in one minute; and in the same time a second hole ½ in. diameter, 1½ to 1½ in. The speed of the piston under a pressure of 3 ) lbs. of air per square inch is about 200 strokes per minute. For particulars and illustration of machine, see specification No. 1466, A.D. 1870. The inventor designed the machine to be held to its work by a single miner. For some time it was used at a min-near Eachweiller, and at one or two places in Westphalia; but the reactive impact of the machine to the shoulder of the workman and difficulty of keeping the tool in a determinate line were disadvantages which could only be obviated by resorting to a mechanical mode of fixing it.

difficulty of keeping the tool in a determinate line were disadvantages which could only be obviated by resorting to a mechanical mode of fixing it.

The Dabo's Francois machine is not only largely employed in Belgium, but is one of the varieties used in forming the St. Gothard Turnel. Fruncois, among other engineers, was engaged in driving the Mont Cenis Tunnel, and had during the progress of that work ample opportunities of acquainting himself with the constructive arrangements and details of the Sommeiller drill, as well as with the system employed for effecting the removal of the rock. The machine, which partly bears his name, although much shorter and of less dimensions than the one devised by Sommeiller, is mounted on a carriage in a somewhat similar manner. The bar to which the machine is attached is set so as to take the reaction of the machine on the line of its longitudinal axis. The machine istelf is formed of two parallel bars on which the main cylinder is placed, a main and valve cylinder, a trigger like tappet, and two small pistons for effecting by means of a bar and pawls the rotation of the boringtool. The valve is shifted by an annular tappet on the piston-rod lifting a trigger. This trigger operates on a conical valve. The opening and clusing of this valve in connection with the arrangement of the piston-valve effects the movement of the latter. The main cylinder carrying the boring-tool is advanced or withdrawn by turning a hand-wheel, which wheel operates on a round threadstrew. The total length of a machine employed at Marihaye is 6½ fit; width, 14 in ; deoth, 12 in.; run on forwarding screw, 22 in.; diameter of cylinder, 23 in.; of piston-rod, 2 in.; length of stroke, 5 to 6 in.; weight of machine, 480 lbs.; pressure of air required, 4 to 5 atmospheres. François's English specification is dated May 7, 1872, No. 1398.

It is not necessary to describe the machines now before the

It is not necessary to describe the machines now before the public. Burleigh patented his invention Nov. 22, 1866; the mounting, general arrangement, valvular and rotating device were points marking a decided advance upon machines previously constructed for mining purposes. McKean's specifications bear date April 14 and Nov. 20, 1870. The machines made by this inventor have been extensively employed, and notably in the St. Gothard Tunnel. The Power Jumper, Kainotomin, and Barrow drills (each of the same class) are distinguished by their valves; the Ingersol by its tappet-valve and feeding device; the machines of the Diamond Rock Boring and Tunnelling Company by the automatism of their various parts. Machines for mechanically removing the rock without the use of explosives devised by Beaumont, Locock, Penrice, Cooke, Brauton, and others need not be adverted to, since they are inapplicable to ordinary mining operations conducted in hard crystalline rocks. Nather is it important to notice Abegas, Trautz, or the Vilepiqué perforators, inasmuch as their use is confined to coal, chalky, and soft argillaceous stone. Jordan's percussion hand-boring machine was only introduced to the attention of the public some few months ago. If suitable and economical for quarrying and underhand stoping, or It is not necessary to describe the machines now before the

introduced to the attention of the public some few months ago. If suitable and economical for quarrying and underhand stoping, or for shafts requiring but a few holes to remove the rock, it will possess considerable value.

The first inventor of a rock-boring machine seems to have been Trovithick. At the time when his attention was directed to the subject Cornwall was not only the chief seat of mining industry; but, through the startling improvements effected in the steam-engine by Watt, Murdoch, Trevithick, Woolf, and others, an impetus was given to machanical inventions which extended far beyond the confines of the county, and men were stimulated athome and abroad to subject the satisfactory and men were stimulated athome and abroad to subject the satisfactory and men were stimulated athome and abroad to subject the satisfactory and men were stimulated athome and abroad to subject the satisfactory and men were stimulated athome and abroad to subject the satisfactory and men were stimulated athome and abroad to subject the satisfactory and men were stimulated athome and abroad to subject the satisfactory and the satisfactory and the subject to subject to subject the tisubstitute as far as possible mechanical appliances for manual labour. Some forty years, however, passed away before the idea of boring shot-holes by means of machinery was reniered practicable. The exigencies of the Mont Cenis Tannel induced Burtlett to devise The exigencies of the Mont Cenis Tunnel induced Burtlett to devise a steam rock-boring machine. Later Sommeiller invented the machine which bore his name, and showed how it could be worked by compressed air. Following Sommeiller's success in the Mont Cenis Tunnel, Italian, German, French, Swedish, American, Australian, and English engineers addressed themselves to the subject of inventing, contriving, and improving rock-boring appliances. Machines 10 ft. long, beset with complicated gear, are now replaced by machines 3 ft. long, presenting little more than the cylinder, valve and a forwarding device. All real and permanent improvements have tended in the direction of increased strength and simplicity of parts. In more particularly tracing the development of inventors' ideas for expeliting tunne ling and mining operations it will appear that they group themselves into—1, forming the shot-hole by a revolving drill, and blasting the hole itself. 2, removing the entire area of the heading without the use of an explosive by the use of a huge percussive or without the use of an explosive by the use of a huge percussive or cutting machine; 3, boring shot holes by means of a small percus-sion engine. The failure of the first method, employing an ordinary sion engine. The failure of the first method, employing an ordinary steel tool in hard siliceous rock was soon rendered apparent; the tool instead of abrading the stone was almost immediately destroyed. The second method—sub-tituting mechanical for mechanical and chemical force, also proved objectionable when applied to hard crystalline rocks. Apart from the machine, blocking as it were the forebreast, the mechanical power required for performing the work was not only excessive, but the progress slow, and the greatest defficulty experienced in keeping the tools in condition for doing their work. The third method—the use of percussion borers in combination with chemical force, is the one which has been, and is likely to be, attended with permanent success. In perforating a heading with with chemical force, is the one which has been, and is likely to be, attended with permanent success. In perforating a heating with the requisite number of shot-holes only a minimum expenditure of mechanical power is required; the chief work, that of removing the rock, being effected by the superior agency of chemical force instantly developed by the detocation of an explosive compound. In a percussion borer the movements required to form a hole are of a threefold character—1, a reciprocatory movement of the piston and tool to disintegrate the rock; 2, turning the piston and tool during the reciprocatory movement; 3, advancing the tool as the hole is deepened.

In one or two machines before the public these movements are

In one or two machines before the public these movements are automatically performed, and such automatic movements are desirable when four or six machines are worked together; but the forwarding or advance movement will be liable to fail in its object unless the rock is of uniform structure and hardness. In other boring-machines the automatic movements are confined to the reci-procation and rotation of the piston, while in some the piston and

will admit of giving such dimensions to the machines that holes will admit or giving such dimensions to the machines that notes 30 in deep can be made without changing the tool, while holes 6 to 10 ft. deep can be drilled if necessary; 5, charging and blasting the shot-holes must be systematically performed and the holes electrically fired, provided this part of the tackle can be rendered permanently reliable; 6, the debris resulting from the blasting operation should be quickly removed, and the boring operation recommenced almost immediately after the final blast; 7, the men employed must be skilled and well trained in their work, and in some war count it he interacted in the remains result. way ought to be interested in the pecuniary result.

John Darlington.

#### THE DISCOVERY OF GOLD IN NEW SOUTH WALES. HARGREAVES AGAIN.

SIR,—It may seem invidious to quote a living man's name for one's purpose in a newspaper, but seeing that a serious amount of public money has been from time to time awarded to the alleged discoverer of gold in these colonies that name becomes a species of public property in the matter of certain discoveries—by-the-bye fortuitous, or if any other than fortuitous perhaps more his mates' than his own. There are various ways of accounting for luck. A man may be lucky through a ladylike mother or handsome relative; there is fools' luck of accident, which is nevertheless, often ascribed his own. There are various ways or accounting for local and may be lucky through a ladylike mother or handsome relative; there is fools' luck of accident, which is, nevertheless, often ascribed to the lucky one's sagacity. There is the luck of praiseworthy endeavour; some have the double chance of luck who can consent to the use of a dirty handle or a clean one to accomplish an object. Luck sometimes results from impudence, overreaching, and greasing the palm, and all this while "bread" is denied to "men of understanding," effort, and ability. By what species of luck is it that one man with a slender pretext beyond mere accident can pass from colony to colony, "cut and come again" with their exchequers, while another, with multiplied and forcible evidence in his favour, has difficulty in gaining access, a hearing, advocacy, or recognition in any shape or form is puzzling to surprise.

in any shape or form, is puzzling to surmise.

It is a fact, Sir, that the earliest alluvial gold washer by a year, two, or three in these colonies, who left his home and staked his whole on his vocation as mineral surveyor and explorer in these whole on his vocation as interest surveyor and explorer in these colonies, made his discoveries at his own cost, by his own labour, communicated with the authorities in England and these colonies on the enormously wide spread of gold, seeking not a gratuity or premium cut of the public purse, but either a privilege in a portion of the soil or an appointment under the Government as explorer, engaging to show what he knew to exist. It was he who in 1848 addressed an enquiry to Sir Charles Lemon, M.P., among other things, whether the Covernment has represented in the control of the surveyors metals in the surveyor metals in the surveyors metals in the surveyors metals in the surveyors metals in the surveyors metals in the surveyor metals in the surveyor metals in the surveyor metals in the surveyors metals in the surveyor many surveyors. whether the Crown would bar mining for the precious metals in these colonies, on which that gentleman induced a committee of the Imperial Parliament to sit and to reply in favour of the explorer.

It would be tedious to go into matters fully from end to end to show why the first man failed in all his efforts for recognition. There are hundreds of living witnesses to his early labours; he has the autographs of great men in England and these colonies, and presumes autor raphs or great ment a right and and these colonies, and presumes to add that no other person claims so early a communication as his own with Sir R. I. Murchison on the gold of these colonies. His discoveries were the result of systematic, painful, protracted, and costly search; he did all a man could do to benefit by his discoveries, but failed. His gold washing outfit was made ready for his use in 1848, after a model now to be seen in Melbourne University, but compating transpring with the South Australian Gold Mainer Charles. something transpired with the South Australian Gold Mining Company to suspend operations with the South Australian Golf Mining Company to suspend operations with them. The apparatus has never been exceeded in point of speed and efficiency, by reason of the process involving only once shovelling of the soil acted on

JOHN PHILLIPS, Mineral Surveyor.

Parker, N.S. Wales, Oct. 10.

#### NEW QUEBRADA COMPANY.

SIR,-Having invested in the shares of this company some time Since at a somewhat high price, and finding that the enterprise appears to be "dragging its slow length along" without any satisfactory evidence of practical knowledge of the requirements of the company on the part of the board, I venture to urge my co-shareholders to combine with a view to rescue the concern from the present unpromising condition to which it has fallen. I am convinced that unless some such measure is according depend we shall find that unless some such measure is speedily adopted we shall find ourselves in a far more desperate plight than that indicated by the letter from Mr. Bird some short time since, which explained the cause of the low quality of the ore sent from our mines. In that letter we are told that the ore was being shipped without being even submitted to the crudest form of dressing, and this astonishing statement is unfortunately only too fully corroborated by the recent ore sale at Swanges where we find that some carries of the recent ore sale at Swansea, where we find that some parcels of the Quebrada ore only averaged 8 per cent. of copper. I need scarcely remark that ore of so low a grade will not nearly pay costs of remark that ore of so low a grade will not nearly pay costs of mining and transport, but how can matters improve whilst not the

mining and transport, but how can matters improve whilst not the simplest assay in the way of testing the value of the ores seems to be made previous to their arrival in England, or surely such rubbish would not be sent, as by adopting the ordinary recognised system of dressing the ore could be made to yield 20 per cent.

Another source of dissatisfaction is the fact that we cannot get any information from our agents through the board. When I with many others supported the election of Mr. C-nsul Hemming it was through his manifold assurances (as per his pamphlets) that we did so, but notwithstanding the fact that he is now the vice-Chairman and managing director, for which I am told he receives a larger and managing director, for which I am told he receives a larger salary than his colleagues, he fails to fulfil the promises pledged to his supporters, who regarded in them as one of their number, with but one common object in view—the legitimate success of the company. Is this state of things to continue? or are the shareholders to really take matters in their own hands, and elect a board composed of gentlemen capable of conducting the company's business in a practical, straightforward, open, and candid manner towards the shareholders at large? The great value of the property, and the grand results which may, doubtless, be derived from it an early day, warrants, in my opinion, the grave step I have suggested on the part of the sha cholders to look more closely into the affairs of the company.—Ealing, Sept. 11.

INVESTIGATOR.

CHEAP BESSEMER STEEL.

Str. - The complaints of the declining quality of British steel and steel manufactures have of late been so numerous that it is absolutely necessary that something more than has hitherto been done to ensure uniformity of quality should be resorted to, for the complaint is not so much that high quality is not produced, but that from want of uni-formity there is an absence of reliability. Now, it appears to me that formity there is an absence of reliability. Now, it appears to me that the invention recently patented by Mr. Robert Hadfield, of Southampton Buildings, is exactly calculated to meet the difficulty, as he claims that not only is a very superior quality of metal produced, but that there is likewise a considerable economy both in time and in the quantity of materials used. Where a blast furnace is in connection with the manufacture of steel, he charges su with suitable hematite ore, or any other suitable ore which is free from phosphorous and sulphur, and smelts the same therein until it is reduced to a molten state. He then runs the molten metal direct from the blast-furnace into any suitable converter, preferably a Bes semer converter, instead of running the metal into "pig," as is now ordinarily practised, thus avoiding any necessity to remelt the pigs, thereby considerably economising both labour and fuel. He then blows and treats such molten metal whilst in the converter in the ordinary manner, whereby it is greatly purified. He then runs it from the converter into any suitable furnace, preferably a Siemens-Martin furnace, which he previously heats to a sufficient degree so as to avoid any injurious cooling of the molten metal whist, under as to avoid any injurious cooling of the molten metal whilst under treatment; and he then retains the metal in such last-mentioned treatment; and he then retains the metal in such last-mentioned furnace for a suitable period, varying according to the quality or temper of the steel required to be produced—that is to say, whether it be what is technically known as hard, soft, or medium steel. In this way he possesses entire control over the metal under treatment, and is enabled to thoroughly eliminate any superfluous carbon other impurities which might tend to prejudice its quality, and thus a very superior class of steel is obtained as the result of his improved process. In those cases where a blast-furnace is dispensed with he

melts the pig-iron in any suitable cupola or air furnace, and when

ready he runs it into a suitable converter, such as a Bessemer converter, and treats it as already described.

I think it will be generally acknowledged that the combined process has many advantages from the facility with which the metal under treatment is held in entire control, thus not only enabling him to produce a far higher quality of steel than is obtained by any of the present known methods, but also effecting thereby an immense economy in time, varying from six to ten hours, and thus ensuring a consequent saving of the labour and fuel requisite for its manufacture, at the same time that by such improved combined process he is enabled to carbonise the steel according to the quality and temper required to be produced.—Oct. 10.

Puddler.

#### CENTRAL SWEDISH IRON COMPANY.

Stn,—I dare say you will remember that in the palmy days of 1873 this concern was ushered forth with military honours, for had we not General this, Colonel that, and Captain tother, with at least one live lord, but he, poor fellow, was a victim, and, to crown all, had we not Mr. Bagnall, who discoursed learnedly on feedal law and on the advantages of granite for building furnaces? Well, 350,000% was lost, and no one seems to know how. Can you tell us anything about it? I saw something about Baron Grant and Bagnall and Sons. Voor Bagnall one of these Bagnalls, or had the Baron anything to with the works? Are we to hear nothing more about it? We with the works? Are we to hear nothing more about it? Were the directors duly qualified in the usual way, or did they pay for their shares like other people? Making every allowance for mismanagement, for there was some iron made, I believe, it seems difficult to say where all the money went. A SHAREHOLDER.

#### THE PRODUCTS OF COAL.

SIR,—Allow me to thank your correspondent, "D. F.," for his in-eresting communication in last week's Journal. He will, perhaps, kindly oblige your readers by extending the list of products in the phenol and pyridine series, and refer us to some sources of information as to formulæ, &c.—Liverpool, Oct. 10.

T. A. R.

#### MINING IN IRELAND.

SIR.—Having read the interesting letters of Capt. Phillips and Capt. Thomas in the Journal of Sept. 22 with the above heading, I felt pleased the subject was taken up, and I trust will not be allowed drop until the Irish and English capitalists are roused to a sense of the danger they incur in speculating in foreign mines, whilst there are valuable properties in Ireland to be developed which in practical hands would pay a good and safe dividend. The two gentlemen referred to are strangers to me, but they appear from their letters to be practical men, and their acquaintance with the Irish mines, and their own practical experience should be worth the attention of English capitalists. I have travelled the most part of Ireland, and know it to be rich in minerals, but unfortunately the Irish are not a speculative people, and as it is considered below the dignity of gentlemen to be concerned in business. the mineral the dignity of gentlemen to be concerned in business, the mineral

sources of Ireland are chiefly developed with English capital.

The misfortune of Ireland is—at least, one of her misfortunes—
hat the middle class is not recognised, and the man who rises from the ranks is looked upon as the offshoot of the lower order, and he trying to ape the nobleman, instead of encouraging the develop-ment of the minerals of his country, would prefer to have his country house and his carriage, and when he finds the English capitalist making a fortune in his country he displays a spirit of jealousy often inexcusable. In England if a shopkeeper makes a few thousand pounds he launches into business, or takes shares in mines or factories, and thus keeps his capital floating. Notso with the Irish shopkeeper; he is afraid to speculate in any business beyond his own, and often, instead of training his son to some useful employment he must have a commission in the army or a flovernment. ment he must have a commission in the army, or a Government situation. To this, of course, there are honourable exceptions, but they are very few indeed. A moment's reflection will convince those who are so noisy about Home Rule and Government assistance

those who are so noisy about Home Rule and Government assistance that if they look more to what they can do for themselves than what the Government should do, they will have much less cause for complaint. In England we believe God helps those who help themselves, hence England's prosperity and Ireland's adversity.

There are other matters that could be introduced here, but believing that the Journal is not the place for them, I leave it for another medium. Referring again to the letters of Captain Phillips and Captain Thomas, I would strongly urge upon both English and Irish capitalists to direct their attention to the mineral resources of Ireland, where they will find a rich harvest yet undeveloped. I believe two-thirds of the failures of valuable mines are caused through the inexperience of the mining captains. Many of them through the inexperience of the mining captains. Many o have a knowledge of working with the pick, but being Many of them destitute of that theoretical knowledge necessary to the develop ment of the property, when the vein nips up, as miners call it, they abandon it as useless, whereas a man practically and theoreti-cally acquainted with mining would be able to form a proper estimate of the utility of pushing forward the place so nipped. which often opens up a valuable property. I speak now from practical experience, having had a similar case to the one stated. in which my foreman insisted on abandoning a vein that nipped up, as he called it, and which on being pushed forward opened out 6 ft. in about two months. I am acquainted with some very valuable properties yet undeveloped, which by a small outlay would yield a good return.

T. DINEEN.

Queen street, Leeds.

#### OUR HOME MINES.

SIR,-There are risks associated with mining companies as with every other speculative ent-rprise, yet all industries and pursuits are alike allied with hazards, or otherwise there would be no in-terest or profit accruing from promoting and extending manufacture, constructive undertakings in the matter of railways, canals docks, gas, water, building, shipping, nor, in fact, in trade and commerce. The spirit of opposition pervades and permeates every branch and department of our social and commercial systems, and without that "hope" which springs from the "risks and hazards," of active and persistent speculative adventure England would never have achieved her present and proud supremacy at home, nor pos sess the colonies that make her powerful and respected throughout the whole world; these, teeming with agricultural and mineral wealth, enriching and ennobling not only the Mother Country, but also enriching and amply sustaining the existence and opulence of her hardy sons who have emigrated to distant shores. Thrift, eco-nomy, and industry as a rule stimulate activity and regulate the conduct of English emigrants, and probably, save America, or rather the United States, no country surpasses in progress and prosperity our colonies—Australia, New Zealand, the Cape, and Canada, and in their gain of wealth and social advancement agriculture and mining go hand-in-hand, and are to all intents and purposes twin sisters, and equally indispens lioration of the people. Sti pensable to the social and material ame-Still, in the face of all the discoveries of gold, silver, lead, copper, tin, diamonds, and gems in our colonies, we must not neglect our mining interests at home; hence we hail with the liveliest satisfaction the upward movement in tin, and the consequent advance in the market value of Cornish tin shares. Dolcoath, Tincroft, Cook's Kitchen, South Crofty, Basset, and Uny have all been advantaged, and it is devoutly to be hoped that the

present is only the harbinger of further improvements.

We regret to add that Tankerville shares, 6t, paid, positively stand at 15s. to 20s. discount; Roman Gravels, 7t. 10s. paid, are offered at par; Leadhills, 6t. called up, are offered at 15s. discount; Ladywell par; Leadmins, 6. Cancel up, are observed at 10s. discount; Ladywen stand at 50 per cent. discount; West Tankerville, 65 to 70 per cent. discount; while Perkins Beach, consisting of 30,000 1*l*. shares, sell at par. Tankerville has declared no dividend for the year, and in the aggregate has paid only 4*l*. 17s. a share; Roman Gravels has paid back just the outlay incurred; Leadhills, 12s. out of 6*l*; West Tankerville, Ladywell, and Perkins Beach nil. The outlary on these six mines have been 334 0001, dividends 144 0001. lay on these six min-s have been 354,000L dividends 144,000L and present market value 310,000L, showing a profit of 70 000L to original shareholders in dividends and market value, or rather over

18 per cent. on the capital called up. Great Laxey, now relin 315,000/., has already declared dividends of 332,250/., and collection of the capital called up. Great Laxey, now relin 315,000/., has already declared dividends of 332,250/., and collection of the capital called up. Great Laxey, now relin 315,000/. 315,000/., has already declared dividends of 332,250/. and cost shareholders only 60,000/. purchased as a going concern. Minera cost the shareholders 45,000/., is at present salesh files,000/., and repaid in dividends 60,250/. Isle of Man 223,30 may be a Van 332,625/., selling at 465,000 may be a Van 332,625/. Minera cost was sold in dividends 605,250%. Isle of Man 22830 dividends. The Van 332,625%, selling at 465,000%, and parents a going concern for 63,750%; and the Lisburge, with an out 18% 15s. sell at 80%, and bas declared dividends of 582, 10s. of late years undue attention has been direct 400th share. Of the years that to the neglect of most deserved lead mines in Shropshire, and to the neglect of most deserved perties in Yorkshire and North and South Wales. The Cun promises to become a star of the first magnitude, when Pennant, Wys Valley, West Wys, Prince Patrick Gowerlyn, North Hendre, and St. Harmon have already end dividend list.

Among the most promising progressive companie Among the most promising progressive companies requiring and patience to mature may be enumerated East Chiverton, and patience to mature may be enumerated East Chiverton, at one time selling for 250,000l. upon a capital of 30,000l only total dividends up to this date have been 165,000l. Again, we notice Bodidris, Monydd Gorddu, Talybont, Pateley Bridge, East Craven Moor, and Tyn-y-Fron.

The Hultafall, in Sweden, continues to open out a continuent of ore, and as the dressing machinery is under contract to best this month, the large accumulations at surface, estimated, to 1250 tons of dressed ores, lead and blende, must early coming year become available for dividends, as the patient is ample to purchase and erect the machinery, and to matunderground workings.

R. Treding

### STRIKES, COMMERCE, AND CORNISH MINING,

SIR.—Nothing can be more indefinite, uneasy, and must than the present state and prospects of the labour mask face of money hardening, and the rate advanced to 4 with every liklehood of its still increasing to a Bank min with every likehood of its still increasing to a Bank min 5 if not 6 per cent.—with manufacture and enterprise-enterprise-enterprise-enterprise-enterprise-enterprise-enterprise-enterprise-enterprise-enterprise-enterprise and stubborn reckless and ratious strikes. If the men out at Bolton and in Lancashire were to encourage economy in themselves and families there would be an end to look extribus for they would some learn the second strikes. strikes, for they would soon learn the costs of both or discern the fact that the burden recoils on thems-less chester the markets have got worse and worse-that and still less doing. Cotton has advanced in nufacture has increased, but buyers refuse to lend a helpin At Bradford the markets continue without relief, and the and unremunerative state of trade is severely felt.

We are arrived at a point when the appalling amount of its will have to be faced and met. The delivery-day will so round, and in the agony of a general settlement debto adequate means will find themselves "cornered" in all and in all trades and businesses. Prices will ruinous the fancy heights at which the "bulls" have raisel it are by no means confined to the analym. Stock Exchange; for, in fact, Lombard-street is equally the treacherous game of time bargains and fallacious tion, and to the extent of two or three fold the actual v Bankers and discount-houses have elevated inflated pitch disproportionate with securities; in fact, a mere is carried on by time bargains, and when the necefor "portfolios of bills" being met by "gold" th for "portfolios of bills" being met by "gold" then com war, and the crash of bankers and financiers follow in pawnbrokering merchants and propped-up gigantic to "creditors" are the "bulls" who inlike the prices; the are the "bears" whose interest lies in the depreciation bulls" will have it now that the great settlement ap forced on from the long protracted and still depreciated manufacture and trade; and this is the gloomy and with mosphere in which we live, and which we for some time must breathe—better the crash come speedily and a rec ment of engagements made under better auspices, and or

Unhappily, ommerce is at a standatill, the revenue sh arative reduction, which, if not alarming, is at leut si the volume of labour in requisition is steadily diminishing —clumsy and expensive expedients—are being multiplied rections, and the winter approaches with rapid strike, b companied by any signs of commercial improvement; a prospects of the money market are that by a stem necessate will advance—and this much is certain, that trade that finance on which it rests cannot bear the severe state. will come with money at 5 to 6 per cent.—say naught of per cent. as very possible if not probable to arise with month to six weeks of the present year. It is time for e on the alert, and merchants, manufacturers, and

ould promptly husband their resources.

The advance in the price of tin created at Redruth last we xcitement and buoyancy as have not been witnessed 871 and 1872, when tin ore gradually advanced to 95%.
00% a ton. The London market has been firmer in sym the volume of business has not been large; in fact. change jobbers, as a rule, are not large holders of change jobbers, as a rule, are not large holders of tor shares, for when in the years referred to all Cornwall with the fallacy of tin ore (70 per cent. of metal) readit ton, they supplied the cute miners of the South-Westowith Dolcoath at 90% up to 95% a share; South Crofty Croft, 40%; Cook's Kitchen, 30%; Carn Brea, 160%; East West Basset, 12%; Basset, 100%; Kitty, 10%; Owles, 20% lack, 100%. In fact, the experts on 'Change were unquinore than equal to the practicals of Redruth, who thought as if the discovery of tin in Australia was a myth as is expansion to the prices proved of their favourite mines scent as the prices proved of their favourite mines

We may observe that no description of property is nd liable to sudden and startling fluctuations and hable to sudden and starting indicates to have been 5 to 2l. a share, again up to 40l. and down to 1l., up again ago to 38l., and a fortnight ago down to 5s., from which deally spring to 25s., and close to-day. Delevant share experience were down to 8l. to 10l. per 179th share; experience were down to 8l. to 10l. per 179th share; experience were down to 8% to 10% per 179th share; in years no dividend was paid, yet the same shares advanced to 2250% and 2350%. A fortnight ago the price had received to not bound the price rose to 720%, and close this destand, or 960% for the 179th part—the original share having different periods multipled by two, then three, and lastly being now 4396 in number, 10%, 14s, 10d. called up, with dividends of 111%, 16s, 3d. a share.

On the advance in the standard for tin West Basset for the part of 10s,—despair was supplanted by hops.

share rose to 10s.—despair was supplanted by hope-from 8l. sprung to 11l.; South Crofty, from 3l. to 9l.; from 23l. to 30l.; Uny, 12s. 6d. up to 25s.; Basset, from 10l. a share, and others in proportion. It is evidently Cornishmen in the years 1871 and 1872 drew largely stores of Pandora's box; it is now devoutly to be wished faith in the requirements of Russia and China raising a ing higher quotations for the metal may not turn of groundless as their hopes some five to six years since. I groundless as their hopes some five to six years since. If remembered that Russia is a long way from Contanuous she has as many cooking utensits to repair as she has ha "poles" to mend, it should also be borne in mind that requiring a large consumption of tin for the remainder of teenth century is wholly out of the question in that spanlared and now all but runed country. We dare venture that neither the Mother Country nor her colony of Australia et al. (Country nor her colony et al. (Country no membered that Russia is a long way fr fessions of Christianity are absurd and intolerable.

Let Cornwall introduce practically the boring

merchants' supremacy in supply of machinery and material

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INING.

at attending to their duties, and drop jobbing in shares was stending to their duties, and drop jobbing in shares:

was stending to their duties, and not use it for their
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and Craiss mining will prosper. The miners of the far west

and pursuits. Mine managers and agents are as a rule stubing pursuits. Mine managers and agents are as a rule stubing pursuits. Again, Cara Brea, Tincroft, Cook's K ting pursuits are practically one mine. There are four staffs
and Dolooth are practically one mine. There are four staffs
and Dolooth are practically one mine. There are four staffs
and be encuntered and maintained. In any other pa to of
and save the district supervised by the Stannary Court these
and save the district supervised by the Stannary Court these
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and save the district supervised by the Stannary Court these
and save the district supervised by the Stannary Court these
and general manager, with a number of experienced, and the
agent of the staffs the workmen. Such arrangements woult
agent the savend working balance in hand—then the mines
and savend working balance in hand—then the mines
and be companies, with a freedom from merchant influence, monoand companies with a freedom from merchant influence, monoand companies, with a freedom from merchant influence all companies. With a freedom from merchant influence, mono-ing prices, and landlords' unjust interference, or exorbitant geof bankers for interest and commissions on needless ad-ander an improved system of administration. It will be contended that the consent of each and every individual sollar is necessary to a fusion of interests into

will be contended that the consent of each and every individual solutions is necessary to a fusion of interests into one amulated support of the contrary, an Act of Parliament special english can control and govern Cornish mines equally with young and, antiquated, and effete indivitry which the force of special control in talliance, with the control in talliance with the sher quant, an equator, and entre inverty which the force of passed advancing intelligence, with the requirements of the smity at large, require and deman! to be expunged and sup-geby laws more in accordance and consonant with the u-ageand by laws more in accordance and consonant with the u-algorated finance and economical working, and wholly in-lepen lent state designated the "vested interests" of the county. Mining files, the north and middle counties, and in Scotland pro-per progress without the aid of a Stannary Court. It is fully time the isstitution became defunct and extinguished in Cornwall molecule existence will prove the bane of the peninsula. Surely altib Curt of Judicature is good and efficient for the mighty this of Great Britain, the puny one of Cornwall cannot require make and additional court of administration.

R. TREDINNICK.

R. TREDINNICK.
Consulting and Advising Mining Engineer.
Indexage, Coleman-street, Landon, Oct. 8.

#### MINING IN MONTGOMERYSHIRE.

A great many mining districts obtain publicity through mull will you, therefore, allow me to draw attention to one night and mostentations explorations are being carefully and granied on. I allude to the country lying to the west to lying and Dwfngwym Mines, consisting of Cafartha, gran, Bugeilon, Glasllyn Consols, and Cwm Tudor. The dúarha, Bugeilon, Glasllyn Consols, and Cwm Tudor. The samel of these (Cafartha) has been extensively worked for bothesia and copper, and some very valuable discoveries have been made there at West Cafartha; they are costeaning to find the lote, and when they do this they will have a great sugge in being able to drive a deep level upwards of 100 fms. If the present workings at Cafartha; this sett extends from an like to Bugeilon Lake, and it is probable contains the thiode also. Next comes Bugeilon, where some surface worktheshes are suggested. And the proprietors are now exect. hidde also. Next comes integration, where some surface work-jurbed end pumping machinery to try the mine in depth. the properties come the great Gla-llyn Consols, which give an area of several square miles in extent; there have been given arised on Moel adding lately, some very find lead has been we rate on a cross cut is now being driven to cut the ad-ph of over 40 fms.; this lode appears to run through allyn L.ke, and it is somewhat remarkable that no fish will the water, whilst at the neighbouring take of Bugeilon there

white water, whilst at the neighbouring take of Bugeilon there uygod fishing.

Thee mines are being worked by private enterprise, Cafartha maparty, Bageilon by an enterprising firm of merchants carryque bainess in Machynlleth and Aberdovey, Glasilyn Consols, scharta, and Cwm Tader by a private gentleman extensively as in mines in the neighbouring county. The magnificent appower available for all these properties, the favourable results find obtained, together with the well known lodes which pass tablities properties, combine to make this a very promising and for mining enterprise, and it is a pretty good proof to see thesels advancing all the funds for the development of it. eoole advan ng all the funds for the development of it.

#### MINING IN CUMBERLAND.

-Mining in all its branches has been under a cloud for a con-ble period, but I think that we shall soon see a great revival pice of metals, which will at once resu-citate many mines a beyance. Carnwall having been worked vigorously for iss does not now present the same chances for a rich disough there are, doubtless, many mines which would pay dvanced price for tin and copper. Wales appears to be ronising district for lead mines, and is besides, comeaking, in its infancy regarding mining. One great mining in Wales is that generally the veins can be ts. Coming further north, the district round Ke-wick st ages very prolific for lead and copper, but at pre-being done. Greenside Mine is still continuing its reer, and the reserves of ore here are something enor-are, perhaps, four or five mines being worked in the Keswick, only one of which I have been able to hey have the same appearances as that one pre-doubt but they will soon attract attention. The is called the Saddleback Mine, situate near the vilnd includes two well-known veins, called Wood-which have been wrought extensively, and other hich little has been done. There are three adit d vein. The low level has been driven upwards of nerous bunches of ore passed through, which have up to above the middle level 20 fms. higher.

are untouched below the low level, except in one al was made by means of a handpump, and a fine d, but which could not be followed down on account A lower level than this could be brought up, or a cted, to work these bunches. The middle level has it 13) fathoms, and for the last 10 fathoms there is which would pay well were crushing machinery aff raised by driving through this can be seen lying vol. There is a communication between the low and of gives good ventilation. The high level has not been the vein, consequently no ore is to be seen. Gates the gill further up, and three levels have been. The lowest level enters upon the one side of burn, burn at about 40 fathoms from its mouth. At this as evidently been a large body of ore, which I have not doubt has gone down good. The vein is over 4 ft. wide. level is driven north about 30 fathoms, mostly . It should be continued about 35 fathoms, mostly i. It should be continued about 35 fathoms further, and bunch of ore in the sole of the middle level. Fel is driven upwards of 200 fathoms, and several passed through. One of these, about 100 fathoms uth, was so rich as to cause the shares of the company per cent., but it failed in the roof. The present end will in a started source beds. and in a strong sparry lode. An intersection with called Blencattra vein is looked for daily, when I have that a good mine will be the result.

Thirty years ago it was paying dividends, and the present company have raised a quantity of ore, but owing to unavoidable circumstances are now compelled to sell it, as appears from an advertisement in last week's Journal. I would advise capitalists to pay a visit to this district, as I am certain they would never regret doing so. It is a pity so many good mines should lied dormant merely for want of capital, where thousan's of men might be employed at a profit to all concerned.

MINING ENGINEER.

#### LEAD MINING IN THE HIGH PEAK OF DERBYSHIRE.

Sir.,—In your valuable Journal of Sept. I I find a letter with the above title, and signed "A Voice from the High Peak." I confess it is interesting to read the account there given of this new lead mining enterprise, and I cannot but wish it every success, but I should like the writer to give a little more information—first I should like the writer to give a little more information—first I should like him to give the reason why this extensive virgin mining ground has not been opened up and worked long ago, also the percentage of the ore in the ordinary assay, and the present value per ton of such ore in the Derbyshire market; will he also give the direction of "the pipe work" he speaks of, and if there are other pipe works crossing this lode at any other point or not, also the quality or nature or productiveness of such pipeworks in that district, and the kind of mineral the lode yields ore in also the kind of mineral the pipe lies in, and how situated in relation to the lode, what depth the shaft is now sunk, what difficulties (if any) they have met with, and how long they will be before they reach the lime formation, how long to sink in that and cross-cut the lode.

\*\*Cardiff\*, Oct. 8.\*\* Cardiff, Oct. 8.

#### MINING IN THE COMBMARTIN DISTRICT.

COMBMARTIN.—The first sampling of silver-lead takes place within the next fortnight. The lod- in the 37 east, as well as in the stope in the back of this level, is further improved; further ventilation only is required to enable the mine to make regular and increased returns of lead, whilst the opening of the old Combmartin lode to the west in the valley near the junction with Harris's lode is considered likely the combmartin of the combmartin lode to sidered likely to open up quite a new feature in the succ

Paracombe.—An extensive grant has been obtained by a very influential mining proprietary for the purpose of working the rich silver lead lode a cidentally discovered in sinking a well on the pre-mises of the Paracombe Brewery. The lode so far as seen is 4 ft. wide, containing rich lumps of silver-lead. It is situated northoust of the Combinartin Mines. Operations are to be commenced

WEST COMBMARTIN.—After considerable delay operations have been commenced to work the western part of this grant, and al-though only a few days since starting a rich branch of silver-lead is opened on producing fully 5 cwts, of ore per fathom, with every appearance of increasing in value, and can be worked on without aid of machinery by adits giving a great amount of back

#### SOUTH CONDURROW-WHEAL GRENVILLE-" A AND B CONSOLS."

CONSOLS."

SIR,—It seems to me inopportune for "Argus" to again put forward his scheme for the amalgamation of South Condurrow and Wheal Grenville after its first proposal over two years ago. The reguments now used are, that this project, if carried out, would have saved Wheal Grenville-shareholders many thousands of pounds outlay for stamping and other machinery. But what about South Condurrow? Why, that the amount that has been divided during the past two years, together with the cash balance in hand, amounting together to nearly 13,000%, would have been absorbed in Wheal Grenville. I fail to see any peculiar significance in the fact of two or three gentlemen holding shares in South Condurrow having bought 1100 shares in Wheal Grenville. If it had any it has lost it, as I am credibly informed these gentlemen have sold, or are selling, out their interest in that mine. It is not an easy matter to amalgamate the mines, especially if a single shareholder opposed it, and I believe many of the South Condurrow shareholder, with myself, would oppose it on the basis "Argus" suggests.

How can "Argus" explain the statement, and still persist in stating, notwith-tanding his knowledge of plans, that South Condurrow has plenty of means for returning the tin, if the stuff could be got, and that Wheal Grenville has abundance of tin, but has not the means of returning it; and yet, after a lapse of two years we find South Condurrow sales of tin increased to 50 tons per month, whilst Wheal Grenville has remained stationary at 15 tons permonth. It was inferred by "Argus" two years ago that there was little or nothing to stamp at South Condurrow, but abundance of work at Wheal Grenville. Surely the shareholders in Grenville have not been waiting to stamp at South Condurrow stamps to go ide. If so I should advise them to buy a good second-hand stamps of delage.

not been waiting two years for South Condurrow stamps to go idle. If so I should advise them to buy a good second-hand stamps of their own (of which there is a good choice now idle in Cornwall), and stamp the abundance of the said to be discovered in that mine. and stamp the abundance of this said to be discovered in that mine. I am told the Grenville shareholders are now providing the means, in the shape of stamping and other machinery, for returning the tin in that mine, and it is to be hoped "Argus's" ideas will, in part, soon be realised; and although it is hardly likely that the mines will be united, yet, if Grenville returns the same quantity of tin as South Condurrow, 100 tons per month will be sold.

In the meantime, as a shareholder in South Condurrow, I am content to let things remain as they are, and shall be glad to receive dividends as usual, that have been honest yearned, and not borrowed from the bankers. I believe this is about the only tin mine that has not an over-draft at the bank and that has a substantial cash balance.

not an over-draft at the bink and that has a substantial cash balance in hand, and the cost paid up to the closest possible date.

Liskeard, Oct. 9. A SOUTH CONDURROW SHAREHOLDER.

#### "W. C.," AND SOUTH CONDURROW.

Sin,—I am not quite certain as to the number of shares held by W. C.," but have a strong impression it is one only, though it may be one but have a strong impression it is one object, though it may be one builded by coming over him as to the prospective dividends of South Condurrow. With Capt. Rich's reply, and the shareholders beginning to learn and appreciate their property, I fancy it will not have the effect he desired in depressing the price of the shares. My opinion is that dividends will last from this mine longer than he will; still I feel very much for my nervous friend, and can act the part of the Good Samaritan. I will relieve him of his anxiety by day and sleepless nights by finding a purchaser at market price, whether one or one hundred he holds, by his applying to me. I will inform you Mr. Editor, if I succeed in the purchase, otherwise I hope I shall see no more of his annonymous letters in your valuable paper, as the object he had in view to me is plain enough,—London, Oct. 11. W. LEACH.

#### CHINA-CLAY WORKS.

Sir,-I was very much surprised to see in the Journal a letter on Str.—I was very much surprised to see in the Journal a letter of the above subject signed "A Toatist," and I must confess that I should have guessed him to be a tourist if he had not said so. In the first place he says that Mr. Stocker, Mr. Lovering, and Capt. David Cock have been very fortunate. Now, I should like to know a few facts. The first two have no doubt done very well, but will "A Tourist" kindly give the names of some of the works belonging to Capt. Cock that have proved so successful so far as the working is concerned, just by way of information for ourselves. When "A Tourist" speaks of the unsuccessful banker I know to whom he refers, but under whose management was the loss incurred at these works, as of course it is one thing to provide the capital, and another thing to spend it, and when there is plenty of cap tall to be had works, as of course it is one thing to provide the capital, and another thing to spend it, and when there is plenty of capital to be had (belonging to others) it is very surprising what expansive ideas some agent; have. With regard to Capt. Minnear, he may be a very nice man, and all that "A Tourist" says, but can "A Tourist" favour me with the names of any large works with which he has been connected that have paid well, so that your readers may be enlightened as to his qualifications for the various degrees bestowed upon him.

"A Tourist" agent to heave had some misciping as to the coars.

M but that a good mine will be the result.

"A Tourist" seems to have had some misgiving as to the quantity and quality of the information given him, as he adds a very

strange postcript; however, if he will kindly favour me with replies strange posterpt; nowever, it he will kindly ravour me with replies to my queries, which no doubt he can do. I shall feel obliged, and I hope that he will not consider it too much trouble to do so, as it is only right we should have a few facts in connection with the lives of such great men, and, therefore, as "A Tourist" appears to have been given such an amount of information it would be kind on his part to give us the little asked for, as we will "look first on this picture and then on that," as one tale is good till another is told.

FARE PLAY.

#### THE CHINA-CLAY TRADE.

THE CHINA-CLAY TRADE.

Str.—A few days ago I sent you a letter referring to the china-clay works of Corn wall, in which I incidentally mentioned a patent fact—that those works which are under the control of an unpractical manager were losing money. At the same time I said that those works which are under the management of experienced agents are, almost without exception, remunerative to the owners. I named a few gentlemen who stand in the category of successful workers. A friend has just informed me that the letter aforesaid induced an intending speculator to withdraw from a clay work in which he intended to invest some of his capital. Now, there was nothing in my letter which should have been taken as a discouragement to such investments, because I named several very successful men who have made fortunes—large ones—from their clay works. If the quality of the article is good, and steam power can be dispensed with in returning it, as at Little John and many other works, there will be profit, but it, as at Little John and many other works, there will be profit, but if much steam power is required profits at the present prices must be small, even under the best management.

Tourist.

Newquay, Oct. 9.

#### WYE VALLEY MINE, AND MECHANICAL BORERS.

Sir,-As a shareholder present at the annual meeting this week, I followed with much interest the discussion that arose between the manager, Mr. Kitto, and one of the directors as to the advisa-bility of using a boring machine in driving his 46 fm. level east and west. Reference was made to the reports that have appeared in the Journal weekly for some time past as to the successful use of these machines in Cornwall, and the question was asked why, if they answer in the hard rocks in Cornwall, should they not be equally useful in the Sdurian rocks of Wales, and it seemed to me that no answer was given by Mr. Kitot to the question raised. He spoke in general terms of mines that had tried and condemned them, and exgeneral terms of mines that had tried and condemned them, and expressed a hope that the inventive skill of our mechanical tool makers would some day introduce a machine that he could use; but he altogether failed to say why rock-borers could not or would not answer in Cardiganshire mining. Now, Sir, are there amongst your many readers any who will answer this quasition for me, and if they have been using these machines and found them fail explain in your columns what they believe to be the causes of the failure. To a mine like Wye Valley, with its large and bunchy lode, a good rock-borer would be an incalcuable benefit.

AN OLD DRILL. Oct. 10. AN OLD DRILL.

#### NORTH LAXEY MINE.

SIR,-In the Journal of Sept. 29 I called attention to this mine SIR,—In the Journal of Sept. 29 I called attention to this mine asking shareholders to exercise a little patience ere it cuts as rich as its famous southern sister. I noted also that North Laxey stands on higher ground, and might require deeper sinking of the shaft. I find an important improvement in the deepest part of the mine, 8 fms. under the 120, is now worth 30 cwts. of lead per fathom; should this increase in value North Laxey becomes at once a success. In the south end of the 146 a change may be daily expected.

CASTLE MONA.

#### WEST POLDICE.

WEST POLDICE.

SIR,—In a contemporary of last week it was stated that the water from Wheal Unity Wood would inundate the workings of this mine, Capt. Heard at the same time advising the purchase of the Wheal Unity Wood engine. Feeling somewhat alarmed at such report, I called at the mine to-day, and find there is not the least symptom of an increase of water from the stoppage of the Wheal Unity Wood, although the water at the latter mine is up to the add level. The shaft is in regular course of sinking below the 52, and the mine opening out good reserves of tin ground, the present monthly returns being about 16 tons of black tin, besides copper ore, showing (at présent low price of tin) a respectable monthly profit. Since the mine has been under the management of Capt. G. E. Tremayne the monthly cost has been reduced, while the returns have steadily increased, thus giving the best possible proof of his capacity as increased, thus giving the best possible proof of his capacity as mine manager. Any shareholder requiring information respecting the mine will always meet with a prompt reply, or by calling on him at the counting-house will receive that courtesy which has gained him the respect of all who have the pleasure of his acquaintance; therefore, parties need not place reliance on unauthenticated reports.—St. Day, Oct. 10.

Miner.

#### WHEAL GRENVILLE.

SIR.—Mr. Rule, in the Supplement to last week's Journal, asks permission to correct some misstatements he says I have designedly laid before the public. Kindly allow me to tell Mr. Rule, if I have fallen into any error it has not been done designedly to mislead; I wrote from honest conviction, and if Mr. Rule disagrees with me I cannot help it; still, the most grievous crime I seem to have committed, even by his own showing is not particularly serious. I wrote—Mr. help it; still, the most grievous crime I seem to have committed, even by his own showing, is not particularly serious. I wrote—Mr. Mrshall, on rusing to address the meeting, was at once condemned, whereas Mr. Rule says he was allowed an hour; it is immaterial to me whether one minute or sixty. He travelled many miles at a great personal inconvenience and expense at the iovitation of the committee, expressly to investigate for himself and friends certain matters appearing to them anything but satisfactory. The Chairman ruled he was in order, and no other Rule or any other shareholder had a right to interrupt; and had they been tired of listening to the queries put they should have left the room. Mr. Marshall was representing about 2000 chares, something like five times the number held altogether by the Cornish shareholders, yet he required to know too much, took up too much of their valuable time, and ought to have ascertained, in fact, all he required to know either before or after the meeting; suffice it to say, however, he did glean sufficient in the meeting; suffice it to say, however, he did glean sufficient information while in Cornwall to induce him to return home and immediately dispose of his large interest in the mine. Some Cornish gentlemen may doubt the wisdom of this step—Time will prove.

gentlemen may doubt the wisdom of this step—Time will prove.

As to Mr. Rule's remarks that the committee have already received several communications from parties regretting having entrusted Mr. Marshall with their proxies is all twaddle, and unless he gives the names I for one do not believe it. Mr. Marshall is too honourable a man to make use of proxies entrusted to his care in any other way than the parties placing them in his hands would wish; and I can tell Mr. Rule if his object is to throw doubts on Mr. Marshall's honour, he and all his friends have their work cut out to make the public believe them. Mr. Rule then refers to that wonderful bargain—the cheap rods, pitwork, &c. I certainly had hoped this again—the cheap rods, pitwork, &c. I certainly had hoped this matter had died a natural death, and buried in the mine, never again to be heard of until the joyful news reached our ears that they were in excellent condition, and working in every way satisfactorily. Mr. Rule says had I seen them I should not have had cause to have recalled the letter I wrote on the subject; he seems here to be lost in a fog, and perhaps he will kindly inform me whenever I recalled any letter, sentence, or word I ever wrote on matters of this kind. I write simply what I believe to be true, consequently have no cause to recall or retract anything. Well, had I seen these materials—I candidly confess not having been brought upon a quaring standard level. didly confess not having been brought up as a marine storedealer—I should at once have yielded to Mr. Rule's superior judgment, especially as I now hear he is a great authority on matters of this kind; but the maxim impressed on me many years gone by was this—never buy second-hand goods of any kind so long as you can obtain new. This role I have always adopted. I believe still it is a wise one, and no Rule in Cornwall will convince me to the contrary, there-

fore we must still agree to differ.

Mr. Rule differs with me again as to its being a packed meeting.

I say again it looked very like it, but if he prefers it I will call it a unanimous, compact, family party. Perhaps he will not object to this definition. He well knows the party, the number there, how

many merchants who supply the mine with materials, the number days before, I find one who had something to say not then on the list at all

He may have been supplied on the day of the meeting with a lew; if so he had a perfect right to be there and give his opinion on the subject he spoke upon.

W. LEACH.

#### THE RISE IN TIN.

THE RISE IN TIN.

THE RISE IN TIN.

THE RISE IN TIN.

SIR,—The recent advances in the price of tin, amounting, I understand, to 5k, per ton, has had the effect of stimulating a great activity in the Cornish share market, and of rising the price of shares in the leading mines very suddenly to an unnatural height. It would have been more sensible for the brokers and others concerned to have waited a few days to see whether the price of tin would recede again, as it has done many times after a sud len rise. I anticipate that those who have bought at the prices stated in the We-t Briton will repent of their haste. There was what some people call a "mining fever," from which, it is to be hoped, a few days of reflection will relieve them.—Oct. 9.

R. S. will relieve them .- Oct. 9.

#### THE VICISSITUDES OF TIN MINING.

SIR.—Wherever mining is followed as an avocation it has been, to a certain extent, precarious and un ertain. The wheel of Fortune, always on the move, disperses its favours most unequally, yet with no stinting hand; and, if there are blanks there are, too, wonderful prizes. Times of depression are as certainly the prelude to prosperity as the winter is the precursor of summer. If those who look the proper Covich vartures with upon tin mining with distrust will compare Cornish ventures with those in iron and other mineral or metalliferous substances they will find the same risks, without the wonderful and lasting success which

find the same risks, without the wonderful and lasting success which tin offers. Dolcoath, Tincroft, Botallack, and a hundred other mines have enriched their owners, and still they are most valuable. The great depression of this year involved all commercial interests in the country, and Cornwall has just passed through a fiery ordeal the like of which has never before been known.

The Russian war panic has been far eclipsed, and even the disactrous year of 1866 has been thrown into the shade, and the effect is that Cornish mines have been weeded, the rotten untrustworthy paper concers have been in many instances rooted out, and the sturdy sterling mines have shown that they are still more worthy of public enterprise. We remember, about twelve years ago, attending sterling mines have shown that they are still more worthy of public enterprise. We remember, about twelve years ago, attending Cook's Kitchen Mine meeting, when shares were at 30s. Shortly afterwards we heard 18t. offered for the same shares without a seller. Since then as much as 60th has been paid for them, and as little as 2s. 6-1.—one of the most extraordinary instances of the "ups and downs" of mining ever known. We believe that before many months Cook's Kitchen will be sold at 20th each, and that Cornwall is again entering another phase of prosperity. Delocath which even now is wonderfully sound, was formerly held in 179 shares, which at one time sold at 10th each; at present price each of these shares would fetch 730th, and have brought thrice that sum. This is by no means alone in the annals of Cornish mining. Tin-This is by no means alone in the annals of Cornish mining. Tincroft, even in very recent years, has been sold at 6. per share, and this mine has paid in dividends, at regular intervals, 50. per share—netting 241,000. within a few years. Perhaps in nothing are the extremes so great as in Cornish mining, and fortunes are made in a year or two.

Much has been said about foreign competition, and doubts are expressed as to whether Cornwall can stand it. Five years ago, when the demand was small, foreign tin was credited with being the cause of all the stagnation; but healthy C rnish mines, strengthened cause of all the etagnation; out healthy Crimin mines, strengthened by the storm of depression, can brave all competition. Eye-witnesses of the mining operations in Tasmania know how little they can affect the market for many years, and the extension of commerce will awain bring us glorious times of prosperity, completely dissipating the clouds which have darkened enterprise in Comwall for many years.

#### LEAD MINING IN NORTH WALES.

SIR,—It is now some time since I addressed you upon the lead mines in what is known as the Flintshire Lead District, but having mines in what is known as the Flintshire Lead District, but having recently visited the locality, I propose to give you a short account of the doings of the chief mines. To commence at the southern extremity—Minera Mines are doing very well, the monthly returns of lead being 280 tons, and blende 150 tons. The rich course of ore near the hydraulic shaft, which has for some time been the chief source of these monthly sales, has, I am informed, been again intersected at a deeper level, and at this point found equally rich. This is a great feature in this grand old mine, which during its present working, extending over a period of upwards of 30 years, has given in profit some 600,000% sterling, and from what I see and herr is likely to prove highly remunerative for years to come. Bodibris likely to prove highly remunerative for years to come. Bodibris Mines are opening up satisfactorily. The middle lode is being developed by the driving of the 60 level east and the 70 west, and in each level the lode has a most promising appearance, producing fair quantities of lead and blende. The cross-cut driving south at the 60 fm. level, to intersect the Mass-y-pwil lode, is driven within a faw fathers of the lode which when our as good discovery. within a few fathoms of the lode, which when cut a good discovery may be looked for. The cross-cut driving north at the 45, with the view of cutting the Craiging lode, is also looked upon as an important point. There is a good pile of clean lead ready for sale, and the mine, upon the whole, is in a most promising condition, and will, I think, soon tell its own tale. Pant-Du, and East Pant-Du are both driving well, the monthly returns I believe heing from 20 to both doing well, the monthly returns I believe b-ing from 20 to 25 tons in each case, and as the mines are shallow and free from water the profits are large.

At Denbighshire Mines a new lode of great strength and promise has been intersected in the north cross-cut at the 120, but I am of opinion that the main lode is still standing further to the north, and I hope the management will continue the cross-cut, in addition to developing the lode just found. The prevailing opinion is that this is to be a great mine. The Flintshire Mines, in which a splendid course is known to exist, still remain in statu quo. It will be a good thing for the proprietors and the country generally when an engine of sufficient power to contend with the water is erected. At Vron Hall the new engine is working well, and the proprietors are sangaine of early success. North Hendre continues in a flourishing con guine of early success. North Hendre continues in a nourisning condition, and is returning to its fortunate shareholders handsome quarterly dividends. The preparatory works in connection with the Halkin Drainage Scheme are progressing satisfactoriy; the most improved horing machinery is to be used in driving the level, and great speed is promised by the contractors. Gareedd and Mellyn is looking better at the present moment than ever before, and I have no hesitation in pronouncing this mine to be the richest in North Wales so far as developed. The ninth monthly sale of 50 tons of lead was made to-day at the Holywell Ticketing at 131.19. per ton. and from what I saw when underground last week I am convinced there is as much ore left in reserve as that taken away. The difnt levels (two east and two west) are richer than ever. A divi dend of 5s, per share was paid last month. To the west of the present workings—some 500 yards—a cross-cut is being driven to intersect the same lode, and, according to the dialling, it will soon be met with, and should it at this point be found rich (and there is every reason to believe it will) it will be difficult to estimate the value of the property.

At Great Holway operations have been commenced—the adit level is being repaired, and the engines and other machinery being put in working order. As soon as the mine is drained a cross-cut will be nriven with all possible speed to reach the Gorsedd lode, and as the mineral-bearing measures are thicker and stronger here the lode may prove even richer than where worked upon by its rich neighbour. In addition to this there are other two champion lodes discovered o an extent developed, from which returns of lead and blende at once be made. This concern starts with prospects of great ses, and the opinion amongst practical miners is that Holway may at once be made. will again become the largest lead-producing mine near Holywell. Saint Patrick is the next mine now working and although success has not yet been attained the workings are, being carried on in the same energetic manner. Good specimens of lead are continually met with in the 120 fm. level cross-cut, which is evidence of a lode

being near at hand, while in the 60 fm, level the chert measures have undergone a change for the better.

The shareholders have for some time been expecting success, but be it remembered that the Gorsedd and Merllyn Mines were working six years before the great discovery was made. I have frequently stated in the Journal the implicit confidence I have in the ultimate success of this undertaking, and have now no reason tractive my conjuine.

the utilinate success of this undertaking, and have now no reason to alter my opinion.

Considering the recent valuable discoveries, and the interest taken in the Halkin Drainage Scheme by the Duke of Westminster and other titled and landed gentry, I believe that henceforth capital will be more readily forthcoming to develope this rich lead-producing district than hitherto.

10 Column street, Oct. 11.

10, Coleman street, Oct. 11.

#### LLAN GAN LEAD MINES.

LLAN GAN LEAD MINES.

Sir,—In the neighbourhood of Bridgdend, situated very picturesquely in the hills, and within an easy walk, are the Llan Gan Lad Mines, now assuming considerable importance by their daily increasing development and output, and the success that has attended their "opening out" from the commencement, with a continual improvement as the works progress. Led by these favourable reports I lately visited the mines, where I was kindly received, and every information afforded me as I was shown over the extensive and valuable property. I was agreeably surprised on seeing a large and substantial building erected—being the engine-house—and on going inside I was still more gratified at the splendid and powerful engine, which, with a stroke of seven to the minute, was working with beautiful regularity and precision, without noise, and scarcely a perceptible vibration, which I consider reflects great credit on those who erected it, and shows the stability of the building.

In the immediate vicinity an engine-shaft has been sunk over 20 fms. in depth, at the bottom of which two cross-cuts are being driven north and south to cut the lodes, and already they have succeeded in intersecting one lode, which was producing some good lead, and my informant added that the further it was driven on the improvement increase I, and on my asking if what I had seen and the description given was not good en uigh, I was answered that it was, but we shall soon have it better than that.

From this point, after carefully looking thr uigh the crusher-room and the well-planned and convenient dressing-floors, and watching with interest the manipulation of the lead through its various pro-

From this point, after carefully looking thr ugh the crusher-room and the well-planned and convenient dressing-floors, and watching with interest the manipulation of the lead through its various processes of preparation, from the lode to its marketable finish, I was conducted to Wright's shaft, level, and winze, from which a quantity of lead ore is being turned out. This part of the lode being very productive, and promising from appearances still greater results, a l concerned seemed to attach great value to these workings, and felt very confident of their future prospects. I was then invited to another shaft, called the old engine shaft, where some new ore ground had lately been discovered, which in a few fathoms had widened out to 2 feet, and was supplying some excellent work; this lode is of to 2 feet, and was supplying some excellent work; this lode is of great width and strength, and composed of the elements of success. I was shown in the space of about 15 fms. some six or seven lodes, but, with the exception of Wright's and Smith's lodes, little development has been done beyond to prove them, but I was told it was intended to work them through the cross-cuts from the engine-shaft. After my inspection of these mines, from what I had seen and the

information so kindly given me, I came to the conclusion that the company have a valuable property, and throughout their workings there are most satisfactory evidences of a rich mine, and only requiring development to yield a harvest to the shareholders. Cardiff, Oct. 10. TOURIST.

THE PRESENT OF CORNISH MINING AS A POFITABLE

### SOURCE OF INVESTMENT.

Sin.—As predicted in my letter of last week, the commencement of the long looked for rise in the price of all Cornish mining stock has taken place—in some instances it has been as much as 400 per c-nt.—with every probability of another such rise in the ensuing fortnight, the enhanced price of tin fully warranting it; so that with such a progressive advance in metal there is not much difficulty in making money by investing in some of the low-price mining stock of the county, due regard, of course, being had to their pro-spective merits, some of which will ere long resume their position in the Dividend List. It would, therefore, be wise to make onein the Dividend List. It would, therefore, so whe to make our self acquainted with the prospects of those mines offering at a mark-t price equal to only the value of the plant on such properties. A further rise of 101 per ton on tin, which is inevitable, must considerably lengthen the list of dividend mines published weekly in the Journal, so that there is no time in the annals of Cornish mining which has afforded a better opportunity for the investor to enrich himself with a comparatisely applied unity. Chas. Bawden. mself with a comparatively small outlay. St. Day, Cornwall, Oct. 11. CHAS. BAWDEN.

#### THE EFFECT OF DECEPTIONS.

SIR,-Passing along Moorgate-street to-day a mine agent, who is Sig.— rassing mong morgace-street to-my a line agent, who is a promoter of mines, clay, and other works, remarked on the vast injury done to l-gitimate enterprise by the numerous good-fornothing projects brought before the public. He said that the success of bad men in imposing on the credulity of capitalists by inducing them to invest has caused honourable men with good schemes to fail of success, because when impostures are made manifest investors in disgust will withdraw from all speculation under the idea that all promoters are required. By that means the the idea that all promoters are rogues alike. By that means the flow of capital into the mining districts is checked. The same agent said that he wished someone had the courage to write down, agent said that he wished someone had the courage to write down, so far as possible, all bad schemes submitted to the public, and at the same time to further all fair and honourable endeavours to bring capital into the districts to work eligible mines, of which many are known to exist in Cornwall and elsewhere. The low price of tin has been, of course, admittedly a good reason for withholding capital from tin mines, but inasmuch as copper and lead mines are at the present moment fit subjects for investment, there is no valid reason why capital should not find its way into them.

One great fault which I find in the investing public is the want of enquiry into the character of the schemes submitted to them before investing their money. If they would only employ a re-

of enquiry into the character of the schemes submitted to thembefore investing their money. If they would only employ a respectable person to inspect and report they would save in some instances a great deal of their capital, because such a person would distinguish between the bad and the good schemes, and report accordingly.—London, Oct. 12.

R, S. cordingly .- London, Oct. 12.

#### THE BASSETS.

Few names are better known in the mining interest than that of Basset, as large landowners and lords of mining property in the richest districts of Cornwall; but the history of the family may not be so well known, and we give the following extract, therefore, from a work lately published by Mr. J. Y. Watson, F.G.S., called "The Tendring Hundred in the Olden Time."

called "The Tendring Hundred in the Olden Time."

This work, which is spoken very highly of by the local press, must have been one of immense labour and research, and it con

must have been one of immense proof and research, and it contains nearly 300 pages of archeological matter, and is elegantly got up for a drawing-room table.

It traces down from the Norman Conquest (with extracts from Domesday Book, of which it gives the history), the ancient manors of thirty-two parishes in the Trendring Hundred of Essex, naming their owners before the Conquest, and the history of their first and their owners before the Conquest, and the history of their first and other possessors afterwards. It gives the origin of hundreds, of parishes, a sk-tch of the feudal times, and the ancient tenures of land, the origin of "heriota" and "knights' fees," &c., while the history of some of the old Norman and other families—notably the Mandevilles, Earls of Essex, the early Dukes of Norfolk, the De Veres, Earls of Oxford, Paul, Viscount Paynig, and a host of others, read like oil romances, and show, as Mr. Watson says in his introduction, that "facts are" sometimes "stranger than fiction:"—
The Bassets—whose names frequently occur in our Chronicles of the Tendring Handred—descend from Thurstan, a Norman, who was Grind Falconer to William the Conqueror: his son, Bir John, was Ylos-Chancellor of Giamorgan, to Kobert Fitzhamon. Thurstan acquired six hides of land in Drayton, and there are four families now claiming descent from him, viz.—the Bassets of Umberleigh, Bassets of Baupre, Bassets of Bonvilstone, and Bassets of Tehidy. The

latter claim in direct male line from Thurstan, and in 1791 Fra Baron de Dunstanville—also Baron Basset of Stratton, in 1791, w his only daughter and heiress, Frances, and her male issue. R Basset, died unmarried, in 1855 when the title basses and Basset, died unmarried, in 1855 when the tite leads was a star representative of the family is Mr G L Basset, of Tehidy: and says Drayton Basset was "the seat of the Basset, who spring lord Lord of Basset, in the reign of Henry I., branched forth fiber forms. Lord of Basset, in the reign of Henry I., branched forth fiber after family. Ralph Basset was the last of Drayton Basset, who being a right aron, had marred the sister of John Moutfort, Duke of Britan reign of Richard II., died without issue.

# Meetings of Bublic Companies,

## WYE VALLEY LEAD MINING COMPANY,

WYE VALLEY LEAD MINING COMPANY.

The third annual general meeting of shareholders was held a Cannon-street Hotel, on Monday,—Mr. J. B. Tipperts in the The notice calling the meeting having been read.

The notice calling the meeting having been read.

The CHAIRMAN said the shereholders would have seen by the fulfilled, and, therefore, he was not in a position to congrain this building they had very bright and brilliant prospects in this building they had very bright and brilliant prospects them; these prospects had not been fully realised, and interest the directors coming before the shareholders with an incress the directors and directors to say they came before them without able to offer any dividend at all. But in the ordinary can being adventure such things would occasion. a shie to offer any dividend at al. But in the ordinary and wining advanture such things would occasionally occury the ordinary and covery teason to hope and believe that the check which the property of the

Would resulte, what distance have you to drive to get under A little over 60 fms.

A little over 60 fms.

A little over 60 fms.

All the over 60 fms.

Iso fms., which is unproductive ground. The adjoining mise was the richest mine of any in the district. The 40 adjoining order 46 in the West Wyo Valley.

Soss asked if it would not be possible to use some description of some some description of miller to what had been used in Dolcasth, Carn Bres, and some, similar to what had been used in Dolcasth, it might be possible to make the fine of the first own of horizontal when tried in one or two of the sid district. nome description of boring machine, but at present it emit fully. A boring muchine had been tried in one or two of the and had not been found to answer. A good deal depended they had to pass through whether a boring machine would In answer to a further question by Mr. Ross, Mr. Kitto a mine in the district which had not been subject to the stand of outly the deal of the comparison of the

In answerto a further question by Mr. ROSS, Mr. RITO SIA amine in the district which had not been subject to the same had no doubt whatever that in the current year this company. He hoped that at the end of the present financial year. By which is a single that a three and of the present financial year they we position as at the end of the last financial year. H. thinself stake in the company, and intended to stick to it as long as the Company and the company, and intended to stick to it as long as to day, but reasons had been fully laid before the shareholder the case. He fully expected the rich bunch which they had 22 fm. level would have held outlong enough to allow them to the parts of the mine, but it did not hold out quite long of the least doubt they would have a rich mine, and he hoped the tallow any despondent feeling to creep over them. All bunch of lead in the 23 west, he said it had been his experies of lead was covered with a cap, or with sulphurets. He was performed the companing one mine with another in the same stratification. For the companing one mine with another in the same stratification, being machinery, a gentleman the referred to tried coat 150%, as rations about two months, and it did not drive the level marketon.

WEST

4-Mr. R. 1 tatement of GRANVILLE de up by th

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HARP ing; v Mit were

opport advocate homs. In some rook the boring machine could be managed very (cambrian rocks it was difficult to manage because of the scams of (ambrian rocks it, but broke off in turning. The heads were made ill could be sent in, but broke off in turning. The heads were made and softened steel was tried, but they could not be got to work.

depted.
the re-election of the retiring directors, and Mr. Ross explange board of directors was not necessary in a company

inion that a large or two other shareholders, agreed with Mr. Ross that a gab, and one or two other shareholders, agreed with Mr. Ross that a gab, and one essary, but expressed a hope that Mr. Ross would not ress not necessary that gentleman one of the most useful directors on the gasterial that gentleman one of the most useful directors on the consideration of the most useful director, as ideal of the consideration of the co

special, as their made special, and the following resolutions were prospecial was their made special, and the following resolutions were prospecial was the spital of the company be increased from 30,000.t. to 36,000?, by
"not the capital of the company be increased from 30,000.t. to 36,000?, by
"int the capital of the special control of the present shareholders pro
spital control of the sp

on." role of thanks to the Chairman and board closed the proceedings.

#### WEST CRAVEN MOOR LEAD COMPANY.

nd annual meeting of shareholders was held at the mine the conditional meeting of shareholders was held at the mine of 4-Mr. R. H. SILVERSIDES (a director) occupied the chair. Instance of accounts for the year ending July 31, previously to the shareholders, was taken as read.

• GRANGLEE SHARP (managing director and secretary) except that the unexpended capital amounted to 4935t. 16s. 3d., and chappen by the following items, as clearly shown in the case.

milian by the following items, as clearly shown in the state of seconds:

multithe balance-sneet was as clear and explicit as it was pos-be. Such however, was not the opinion of everyone, as one of after receiving it, wanted to know how much capital there the for the further development of the mine. In case other-lant comprehend the accounts he embraced the opportunity in the availantion.

siler receiving it, wanted to know how much capital there
if for the further development of the mine. In case others
if to the further development of the mine. In case others
if to temprehend the accounts he embraced the opportunity
ag this explenation.

DATO WILLIAMS (the resident agent) read his report:

— The following is my report on this mine, I may say these mines, for at
the many seconsidered as two, commencing with the western part of your
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the side of the second of the second of the second of the second of the second
adjaces: errying a sold branch of the latter, varying from 3 to 18 in.

adjaces: errying a sold branch of the latter, varying from 3 to 18 in.

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adjaces: errying a sold the work has been inpect for about 5 frms, but is

elabor. In the end the vice has been on the dupt it will shortly resume its

again satisfactorilly, and I have not a doubt it will shortly resume its

ask. We have three stopes in the back of this level. No. 1 in a lode 2 ft.

ask. We have three stopes in the back of this level. No. 1 in a lode 2 ft.

ask. We have three stopes in the back of this level. No. 1 in a lode 2 ft.

ask. We have three stopes in the back of this level, with the end or

ast the level, in a lode 6 ft. wide, worth 12 outs. of lead ore per fathom.

No. 2 stope, 40 fms. and within 4 fms. of the level, with which I

if all all full ducted in this No. 3 stope.—New Blackhill shaft: This shaft

for an individual in this No. 3 stope.—New Blackhill shaft; This shaft

is all the properties of the shaft of the shaft of the shaft level, with which I

is all shaft on a stope in

sof shafts and winzes had been sunk, and 130 fms, of ground. There is ample supply of water all the year round for dressing sa, including the working of the new wheel, with the crusher, she igger. They would, of course, be subject to delays during the severe issues all machinery dependant upon water power. The new crusher may will be capable of returning 40 tons of lead per month; this will be shet of the best work, which will, of course, be treated by hand, as all influence of the sext work, which will, of course, be treated by hand, as all influence of the sext work, which will, of course, be treated by hand, as all interest of the best work, which will, of course, be treated by hand, as all interest of the best work, which will, of course, be treated by hand, as all interest of the sext work of the west and new east a manufactor of the west work in the bottom of the 20, on No. 2 lode was a continuous course of ore 35 fms. long, which cannot be now worked times of the water. There is more water than he anticipated to contend the did so not to proceed with the sinking of the two shaft - at pre the wat until the adit level unwatered them. Should let the driving of limbly tender for a 50 fms. contract. Blackhill shaft was let in that way; the son 25 fms, and by the end of the month would be completed to 46 fms in six months.

[EalBMAN in moving that the accounts and report be adopted of shafts and winzes had been sunk, and 130 fms, of ground

Assumant is also months.

Assumant in moving that the accounts and report be adopted self, expressed himself disappointed at not finding more pretise occasion to see for themselves the greatly improved is of their property, and the large amount of work that acried out since the last meeting on the mine 12 months lating which was given by Capt. D. Williams in his report. Since this given by Capt. D. Williams in his report. was given by Capt. D. Williams in his report. Since here had been 200 fms. of levelsand cross-cuts driven, and winzes sunk, and about 130 fms. of ground stoped in all, droken and brought to surface, from which over 1000/, has been ed lead after the dues had been deducted. He congratulated in the present financial position of the company, remarking that solt wintever about the great value of the property, it was now the most approved machinery and appliances for henceforth of company, the was glad to find that preparations for dressing supported method were considerably advanced. The new water-thence crupher was near completion; it and the new self-acting snew crusher was near completion; it and the new set acting pb. Williams had informed them would be on the mine by the The sminently satisfactory way in which the money had del reflects the greatest credit on the managing director and —It was then resolved that the accounts, also the agent's not because.

was fully aware of the importance of vigorous operaning; very many mining companies nad come through having wasted their working capital by dragging through having on sufficient Proportanity presented. It must be admitted by all that be opportunity presented. It must be admitted by all that puriable to money, and especially is it so in mining. He, buffected expedition in the development of a mine, with a shing the desired object with as little delay as possible. West Craven segretasive nineral property, one that, he could safely venture to mages shared one of the could not live to see it fully developed, however signature of the could not see that the could not see that the could safely venture to his mise of a see that the could safely venture to his mise of a see that the could safely venture to his mise may be carried on, as may readily be understood when a fix mise of the see that the could be understood when a fix mise of the see that the countries, and that the countries of the see that the countries and that the countries of the development of the northern half of the set, has an exposud on several vens or lodes, three of which are being wrought hat, so all of which operations have been conducted with dispatch, as and was done during the last year. He (Mr. Sharp) was very much

gratified at the near connection of the new Blackhill shaft with the Blackhill adit level; the shaft, which was commenced as recently as the latter end of last April, was already sunk to a depth of 26 fms., and he toped it would be down to the level and communicate with it by the end of this month. The shaft has already proved of considerable advantage, insumuch as through an old adit with which the shaft had come down into, and a stope in the back of the Blackhill adit level having also reached the same, a communication had thereby been effected, and the Blackhill adit (which is now some 7.0 fms. in length) is thoroughly ventilated, and miners are able to descend into the adit to their work in a very few minutes instead of by the adit entrance, thus saving each pare of men the distance of walking nearly 700 fms. four times adily. A word in reference to the dressing department. Whilst admitting that the dressing appliances were anything but satisfactory, he assured the shareholders that no time was being lost in the preparations for supplying the requisite machinery for that very important branch of successful mining. The new wheel to work the new crusher and self acting juggers would be erected near to the entrance of the adit level, from whence at all easons there was a good flow of water, which, independent of the supply from the surface of the moor, is ample for the working of the whole dressing floors.

The retiring director (Mr. R. H. Silversides), also the auditor (Mr. H. J. Green) were re-elected, and a vote of thanks to the Chairman concluded the business of the meeting.

#### GREAT LAXEY MINING COMPANY.

The annual general meeting of shareholders was held at the Imperial Hotel, Douglas, on Wednesday,
Mr. G. W. DUMBELL, H.K., in the chair.
Mr. J. D. ROGERS (the secretary) read the notice convening the meeting, and the directors' and agents' reports and statement of accounts, an abstract of which has already been published in the Mining Journal. were submitted.

accounts, an abstract of which has already been published in the Mining Journal, were submitted.

The directors reported the financial position of the company is highly satisfactory, and enabled the directors yesterday to declare the usual quarterly dividend of 8s. per share, payable in 14 days. They have also carried over a further sum of 150% to the reserve fund, which, after meeting the whole amount due by the Burry Port Company of 5072; is now 5680%, exclusive of the purchase of the steamer. The constant falling off of price in the lead market has told a reatly against the returns, yet the affairs of the company, and the steady value of shares, contrastivery favourably with any company in the United Ringdom. Improvements in the mode of working and dressing the ores are constantly being made; and, although requiring large outlay, are highly beneficial to the company. Since the last half yearly meeting the locomotive engines referred have been set to work in the adit level, and are found highly satisfactory. The directors intend shortly to make use of the rock-drill boring machine, and only want to be sure that they select the best out of a great number now at work in various places. All the works at the mine are being carried on to the satisfaction of the directors, and after providing for all the payments referred to, and for every liability of the company, a considerable sum is carried over to the credit of the company.

The CHAIRMAN congratulated the shareholders upon the continued

company.

The CHAIRMAN congratulated the shareholders upon the continued prosperity of Great Laxey, which, amidst all the commercial depression that had existed throughout the United Kingdom they stood in the extraordinarily favourable condition of not only keeping up their dividends and reserve fund, but of having kept up the value of the shares in the market. He thought that fact must be a source of very great satisfaction to everyone connected with the company. (Hear, hear, in the extraordinarily favourable condition of not only keeping up their dividends and reserve fund, but of having kept up the value of the shares in the market. He thought that fact must be a source of very great satisfaction to everyone connected with the company. (Hear, hear.) He himself had no wish personally to see the shares going up to a fabulous price. He would himself prefer seeing them always maintain what he considered a fair settled price—such as would give the purchaser a fairly handsome dividend for his outlay. (Hear, hear.) It was, to his mind, something positively wonderfal—when they knew and saw the continued falling in the market price of lead ores, together with the existing commercial depression in England—that they had main tained the position they coupied. They all knew the dividend now payable was not a dividend upon the selling price of shares, but upon the capital stock of the company, and, looking upon it thus, the dividends they were now paying were at the rate of 50 per cent. Per annum. There were few concerns in the kingdom mining or otherwise, that could say that. The falling off in the price of lead had been from 25/. a ton to 26/., and that was a reduction which would affect any company very seriously. But, notwithstanding that, they had been alot to pay their dividend and bonus, the additional outlay in the cost of machinery, and to pay out of the reserve fund the loss caused by the failure of the Burry Port Company without touching the funds available for dividends in any way whatever. He did take to himself a positive amount of credit for the determination they ome to within example the contraction of credit for the determination they ome to within example the contraction of the contraction of contraction of which is invested in English Consols, and, therefore, is so available that they can call for it at any moment it may be required. Few mining companies could have done what they had—paid their dividend and bonus without discounting a single bill. Every man of business knows

sis, between 250, 3s. 6d. in February last and 220, 6s. in July—they found that it would have made a difference of about 200001, in the returns in the sales from this mine. He con-iclered that it must be a source of the greatest satisfaction to the company to have such a report as this from the managers, and such a statement of accounts as that produced to the meeting. The dividend declared on the previous day was the 50th that Great Laxey had pid. The Chairman has been sevalude with the company about that number of her company about that number of a wonderful account. He was very anxious indeed to see boring machines introduced into the mine. If by the use of these machines they would be able to bore twice the distance with the same number of men, and at the same expense, it will be a great thing for the mine. It would, in fact, give them a new lease. Instead, however, of twice the distance, he believed that it would enable them to bore three or four times the distance, and one can easily imagine the effect this will have upon their returns. That would give them at a glance the influence of such an instrument in a mine like this. Considering all the creumstances, he felt that it was creditable to the whole management that they had been able to produce such as wonderful balance shed as that which had been placed before the meeting that day.

If the such that the such that day, the such that they had formerly been, and that at all events something had been saved towards they appeared to be much more economical in the management of the mine than they had formerly been, and that at all events something had been saved towards the 500. a year paid to the directors. There were many other things that he might mention, and upon which he could throw light, but he would not allude to them now, but he must say that he thought that in other ways they were getting bath the 500. a year paid to the directors. There were many other things that he might mention, and the such as a substitution of the such as the such as a substi

self. Let us compare the appearance of the village now with what it was year ago. Where did all the money come from to build all those houses? Ther's Mr. Stevenson sitting there, and he knows where that money came from. There are very few of the miners who have not a house of their own; and the money that built it came out of the pay, of course. He was very glad it it they had money to build houses, or to invest it in any other way they think best.

The motion for the adoption of the reports and accounts was then put, and was carried unanimously.

The CHAIRMAN said that there was one fact which he would like to put before the meeting as showing the value of Great Luxey as a mine. The Government returns showing the amount of lead ores relied in the United Kingtom for the year 1876 had just been published in the Mining Journal, and he found that taking all the counties in England the little Isle of M. on came out fifth in the quantity of lead ore raised, and that so far as silver is concerned it outstripped by far any county in England, the quantity of silver raised in the Island during that year having been the enormous amount of 170,000 ozs. In this respect it took fie of the largest counties in England to match the Isle of M. on and they knew that with regard to the production of lead and silver Luxey was to a great extent the Isle of Man. Let them not take of the little Isle of M. and they knew that with regard to the production of lead and silver Luxey was to a great extent the Isle of Man. Let them not take of the little Isle of M. and any me when it took five of the largest counties in England to match it. With regard to the projuction of blends there was no place in the kingdom to touch it, and in this respect also Luxey is the Isle of Man.

Mr. Stevenson sait that they should endeavour to get a proper harbour built at Luxey, because the people would be able to get their isla and coals for less money, and would then be able to work for lower wages. When the men had to pay It. 2s. 3d. a ton for coal the pe

re-elected.

Messrs. BROADBENT and P. WATSON acknowledged their re-election; Mr. Goldsmith was re-appointed professional auditor; and Mr. Frederick Faulkner was appointed non professional auditor in place of Mr. P. L. Garrett resigned, and to whom thanks were voted.

Upon the vote of thanks to the secretary, managers, and officers of the company being proposed, Mr. PARKES suggested that they should receive something more ambitantial than thanks.

Upon the vote of thanks to the secretary, managers, and officers of the company being proposed, Mr. PARKES suggested that they should receive something more substantial than thanks.

The CHAIRMAN was uncommonly glad to hear the opinions which Mr. Parkes and expressed on this subject, and still more glad to find that he had suggested the very thing which the directors had already carried out; for at their meeting yesterday the directors voted a gratuity to the secretary and to each of the managers. It was very satisfactory to the directors to find a shareholder getting up to propose the very thing which the directors had re olved on doing.

The thanks and gratuities having been acknowledged, a cordial vote of thanks was given to the Chairman, and the proceedings terminated.

#### PRINCE OF WALES MINING COMPANY.

PRINCE OF WALES MINING COMPANY.

The adjourned general meeting of shareholders was held at the company's offices, Gracechurch-street Buildings, on Thursday, Mr. J. Y. WATSON, F.G.S., in the chair.

Mr. C. B. PARRY (the secretary) read the notice convening the meeting, and the minutes of the preceding one, which were confirmed. The subjoined report from the agent was then submitted:—

Oct. 10.—Since your last special general meeting, held August 30, we have cased and bed planked the shaft on the silver lode from surface to the 24, we have also put in ladder-roud and erected a horse-whim on the same shaft, and have since cleared the 24 fm. level home to the Wheal Sevent and the same shaft, and have since cleared the 24 fm. level home to the Wheal Sevent is small, and at the present time will not pay to work, but this should not be taken as a criterion, as silver is generally found in hunches, and may be poor to-day and rich to-morrow, and as the ground is easy for working rich deposits of silver may soon be found. The silver lode in the w-stern part of the lost on the same and as there is a length of the silver lode, I would advise that a ladder roud be put in that shaft, also easing and bed-plank, so as to be in a condition to draw the stuff through, when two levels could be driven west from that shaft; conclevel should be proving the lode in the view west from that shaft; conclevel should be the deep adit, and the other (say) 20 or 25 fms. below the surface; this would be proving the lode immediately opposite where they have had their best bunches of silver in Wheal Newton.—J. Andrews.

The CHAIRMAN reminded the shareholders that at the last meeting it was decided that the first thing to be done was to pay off the sutstanting debts; but as it was not companyed for the suite was the companyed for the suite was the companyed for the suite was decided that the first thing to be done was to pay off the sutstanting debts; but as it was not companyed for the suite of the suite was the companyed for the suite was the

The CHAIRMAN reminded the shareholders that at the last meeting it was decided that the first thing to be done was to pay off the outstanding dests; but, as it was not competent for that meeting to make acall, it was determined to adjourn, it being at the same time understood that all cost should be, as far as possible, stoppel, but they should test and see what could be done with the silver deposit. All cost had been stopped, and the silver had been tested, the result being, as far as they had gone, satisfactory. The negociations for the sale of the property to a neighbouring company had as yet led to no result, as the suggestion which had been made to them that the Prince of Wales Mine should be transferred upon certain terms had not been followed by a definite written offer, which had been several timesapplied for. They might, therefore, regard that project as having fallen through. There had also been expressed a desire to turn the concern into a limited liability company, but they might have to pay 100% or 150% for effecting the proposed change, and then not get a share taken by other than their own shareholders. He, therefore, thought considering all the circum-traces of the case, that it would be preferable to pay off the exis ing debts and go steadily on to test the silver at a trifling cost. If the silver deposit turned out as anticipated there would be no difficulty in resuming vigorous operations. Mr. Parry had been down at the mine last weak and had herought up the stones upon the table and he need suming vigorous operations. Mr. Parry had been down at the mine last week, and had brought up the stones upon the table, and he need scarcely say that if they could get a few good parcels of that quality they would have nothing to complain of.

Mr. Parry said that, of course, those were selected stones, but they were very encouraging. They were of a high produce, but the last assay from the lode was about 57 ozs. of silver to the ton, and they must recollect that they were from a very shallow depth as compared with the deposit in the neighbouring mine, which had given some very high produces. If Viger's shaft were cleared to the 40 fm. level, as recommended, he thought they had an excellent prospect of obtaining some remunerative ore, but they must remember that silver ores were always found in bunches.

Mr. Kenty was recently at the mine himself thought for course

member that silver ores were always found in bunches.

Mr. Kerly was recently at the mine himself, though of course he did not go underground, but from what he could learn the mine appeared to lie well, and he believed that if the lower adit were cleared out they would have a good property.

The CHAIRMAN remarked that they had sone ore when they last worked it, one small stone of which, brought up by Mr. Hitchins, was sold to Messrs. Johnson and Matthey for 40!.

Mr. WAGSTAFFE said that if the one only produced 57 ozs. of silver to the ton there ought to be no difficulty in meeting cost, and as the fixed charges were the same whether they employed few or many men, he thought they would do well to increase the number of men from four to six or eight, and then the aggregate cost need not exceed 50!. per month. not exceed 50l. per month.

A SHAREHOLDER remarked that to increase the number of men as suggested would not make twopence per share per month differ-ence to the shareholders, whilst it would tend greatly to develope the mine.

Another Shareholder proposed that they should at once make a call of 2s. per share to pay off their present debts, and see what could be done with the silver lode by the time of their next meeting. The SECRETARY stated that the whole of the present holders were strong, the weak ones having been weeded out. There were at the present time only 6332 shares, the remaining 6000 odd being in the hands of the company. These would be an important asset upon the silver lode turning out well. The CHAIRMAN said he could himself have placed some of these

shares at 4s. per share, but it was not considered desirable to do so, and the price was now a little better. Had the forfeited shares been disposed of there would have been no necessity for a call now.

It was ultimately resolved that operations should be continued on the silver lode, as recommended by the agent. It was also resolved that, in order to clear off the liabilities of the company, a call of 2s.

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per chare be made, and that 5 per cent. discount be allowed upon all calls paid or or before Nov. 1.

The usual complimentary vote of thanks having been pane Chairman, and acknowledged, the meeting separated.

#### LINARES LEAD MINING COMPANY.

The half-yearly general meeting of shareholders was held at the offices of the company, Queen-street-place, on Thursday,
Mr. WM. Cox in the chair.

Mr. Henry Swafffired (the secretary) read the notice convening the meeting, and the report was taken as read.

The reports and accounts which accompany this bring up the record of the company's operations to June 30 last. For the half year which terminated on that day the profit amounted to 5269. 14s. 24. This amount does not equal that of the previous six months, but, considered in connection with the reduced price obtained for the lead sold, and taking into account here prediture which has been incurred at the Cordova Works, the result is satisfactory of the previous six months. This has, of 50 tons on a comparison with those of the previous six months. This has, of course, affected the profit in the accounts now presented, but, fortunately, there is no falling off in the quantity of discovered estimated at a total of 2400 tons.

ore ground available for future extraction, as the reserves in both mines are again estimated at a total of 2400 tons.

The work of extending and deepening the mines is being vigorously carried on, both at the Pozo Ancho and Quinientos Mines. At the former the continued productiveness of the lode at Peill's shaft has been a cause of great satisfaction to the board. In the 105 excellent ore ground has been opened out during the past half-year, and this gives the directors great hope that the lode when cut in the 120 will be equally rich. Should this expectation be realised it will give additional interest to the work of deepening the old Pozo Ancho Mine below the 120, which is now being prosecuted.

The Pozo Ancho Mine is provided with a powerful steam-engine, which is capa-

be equally rich. Should this expectation be realised it will give administration to the work of deepening the old Pozo Ancho Mine below the 120, which is capable of effecting the drainage at a much greater depth than has yet been reached, so that the expenditure under the head of new machinery in connection with this important work will be light for some time to come. The outlay incurred in sink ing the Pozo Ancho Mart during the past half-year has amounted to 686f. 16s. 4d., as shown in the balance sheet to the debit of the reserve fund.

The branch line of railway from the town of Libnares to Pozo Ancho Mine has been opened for traffic since the date of the last general report. This greatly fact litates the regular transport of produce and material, and likewise effects some saving in the cost of transport. The alterations recently introduced into the method of smelting at the Cordova Works, although involving some outlay on plant, have resulted in further economies in the cost of working. This will place the company in an excellent position for smelting the purchased ores, which are now being received. It was only towards the end of the half year that the smelting of purchased ores was commenced, and hence no statement of profit from this source can say et be furnished. The balance standing to the credit of the profit and loss account on June 30 last amounted to 604lf. 13s. 7d., and after deducting the dividend, which is payable on Oct. 13, and placing 500. to the reserved fund, there will remain a balance of 542 cs. 11d. to be carried forward. The reserved fund with this addition will amount to 3903. 19s. 5d.

The CHAIRMAN, in moving the adoption of the report, said they were proceeding on the even tenor of their way. The profit made during the six months over which the accounts extended was not during the six months over which the accounts extended was not so much as that of the preceding six months, and for the best of all possible reasons, because their produce had not fetched so large a price as it had then done. He need hardly explain that if they sold lead at 221. 10s. per ton they must make a large profit, but he was happy to be able to say, in the presence of their superintendent, Mr. Tonkin, that it was satisfactory to find, with lead at 191. 10s. and 191. 15s. per ton, they were able to make a profit to pay a dividend of 6s. 8d. per sance. That, with the dividend paid six months ago, amounted to 30 per cent, per annum on the shares, and great credit was due to their manager for this result. It was also due to the general increase of facilities in Spain in consequence of railways being made. For years they had had to carry coal up to the mines on donkeys' backs, and had also brought lead down to the sea in the same manner. After that they had a system of carts; then they had a railmanner. After that they had a system of carts; then they had a rail-way partially, and experienced tremendous struggles in getting from Linares down to the station where the rail way was. They had now a railway reaching to the works, where they could load the produce of the mines, and convey it down for smelting to Cordova. The works there were situated about 1½ mile from the station, and they had now only to get a railway from Cordova into the works in its works there were situated about 1½ mile from the station, and they had now only to get a railway from Cordova into the works in its neighbourhood, and then they would have arrived at such a point that they would be able to put into wagons at Linares the produce of the mines and send it down into the smelting works at Cardova. All these things had tended to diminish the expenses, and, therefore, they were enabled to pay 6s. Sd. per share in addition to the 9s. they had paid in the first part of the year, making 15s. 8d. per 3d share during the year. He had but few more observations to make, share during the year. He had but few more observations to make, except to congratulate them that they had been enabled to carry on these mines as they had done for the last 22 or 23 years, and paying the dividends which they had paid. He was an original shareholder, and when he took his shares 22 years ago he had no expectation that they would have continued for the time they had done; but at the present moment he felt they were more likely to carry them on for another 23 years than he thought 23 years ago. (Applause). He concluded by moving "That the reports now taken as read, with the accounts and balance-sheet, he received and adopted."

Mr. HENRY SODEN seconded the resolution.

Mr. JOHN TAYLOR congratulated the shareholders on the position they now held. The affairs of this company were not managed as the affairs of some others perhaps, were managed. In the first place, their liabilities were next to nothing, being nothing compared with their assets on the other side. The main portion of their liabilities were for bills payable, which came forward and were met in the ordinary way. Besides this they had been luckily prudent enough to put by a reserve fund all along to equalise dividends, or other purposes of that kind, or to extend their works by baying another mine if a good opportunity offered, and the result was that they were all comfortable in regard to finances. There was nothing in the accounts which anybody could find fault with, and they were put before them in a clear and perfect manner, as it appeared to him. (Applause.) He took great delight in studying accounts of this kind, and whether he was a large or a small shar-holder in a concern he liked the accounts to be clear and distinct. Mr. Cox had referred to the advantage of having the railway up to the mines. had referred to the advantage of having the railway up to the mines, so that the coal which arrived at the port from this country could be put in the railway wagons, carried to the works, and there used with the minimum of breakage. They had introduced at the mines many economies, and their friend Mr. Tonkin, who was present at the meeting, had seen all the improvements since he was last in England, and he would no doubt raturn with a dargingtion to apply meeting, had seen all the improvements since he was bresent at the meeting, had seen all the improvements since he was last in Ecgland, and he would no doubt return with a determination to apply a few more. The day would come when they would all be obliged to apply in mining some of the economical arrangements for boring. Mr. Tonkin had seen and studied them, and the time might come when they would be able to send him some portions of that machinery of a simple kind which would facilitate his operations in future. He did not at all approve of picking out the eyes of a mine, but he proposed and recommended that they should carry on their levels, and sink down the shafts, and continue the life of the mine to the greatest possible period. He believed the mines were as good as they were 23 years ago, and their object should be to maintain them in a like condition 23 years hence. (Applause.)

Mr. Tonkin agreed with what Mr. Cox had stated, and also with the remarks of Mr. Taylor, especially with respect to the application of mechanical machinery for the general purposes of mining. They were now sinking at the rate of 4 metres per month, and the price was about 184, per metre, so that the shaft was already 10 fathoms below the 120 fm. level. They were also pushing on the 120 fm. level, under where they had the original courses of ore in the former mine. Mr. Taylor had urged them to have exploratory works, and he notice greater with him that it was the heat thing the greater that it was the heat thing the greater.

mine. Mr. Taylor had urged them to have exploratory works, and he quite agreed with him that it was the best thing to secure the perpetuity of the mine. As they were now driving the 120 east, when they got down to the 135 it could be driven west. Very little had been done in Peill's lode, which was a comparatively new one They were now about to intersect it at the deepest point of the 120, and if it were found as good there as in the 90 and 105 he believed and I it were found as good there as in the 30 and 105 he he leved they would have a good mine there. It might not be so rich as the old mine was 15 or 16 years ago, but the condition of the mine at the present moment was better than at any time since 1864 5. At that time they were rather at a low ebb, but they had gone on improving. At Warne's Mine they were sinking the engine-shaft in a very good show of ore, and altogether their prospects looked better than at any time during the last 12 years. (Applause.) better than at any time during the last 12 years. (Applause.)

The resolution was put to the meeting, and carried unanimously.

A cordial vote of thanks was then proposed to the Chairman and Mr. Shelton next proposed a vote of thanks to Mr. Tonkin, which was duly seconded.

Mr. JOHN TAYLOR supported the motion, and stated there were from 2000 to 3000 people employed. All went on like clockwork, and there was never any trouble. He could thoroughly endorse the motion, as Mr. Tonkin was deserving of their thanks. (Applause.) Mr. Tonkin thankel the meeting for their vote of confidence in

him. It was very encouraging to receive such a reward, and he hoped to continue to confluct the business to their satisfaction, and in the best interests of all concerned. (Applause.)

The proceedings then terminated.

#### FORTUNA MINING COMPANY.

The half-yearly general meeting of shareholders of this company as held at the offices, Queen-street-place, on Thursday, Mr. ROBERT HENTY (the chairman) presiding.

Mr. HENRY SWAFFIELD read the notice calling the meeting.

Mr. Henry Swaffield read the notice calling the meeting. The report of the directors was as follows:—
The report of the directors was as follows:—
The results of the company's mining and smelting operations which have been carried on during the past half year are fully set forth in the reports and accounts annexed. The sudicted accounts show that the profit on the mines for that period amounted to 8387, 18a, 7d., which, compared with 8494, 18s, 7d., the profit for the previous six months, exhibits but a slight variation between the two half-years. The mines have opened out well during the period embraced by these accounts, the result being that an extraction of 384 tons of lead ore per month has been maintained, and the reserves have been increased by 100 tons; they are now estimated at 7900 tons. Both at Canada Incosa and Salidos Mines good ore ground has been discovered since the last general meeting, and the mining agents report that "the pospects for the ensuing half year are very encouraging." The smelting establishment at the mines has been extended, and the company is now in a position to treat a large quantity of ores. The results obtained from the ores which have been smelted during the past six months are fully described in the accompanying smelting report.

been smelted during the past six months are fully described in the accompanying smelting report.

The extrasion of the line of rallway from the town of Linaresto Pozo Ancho has given the company the benefit of regularity in carriage to and from the mines, and a farther advantage will be derived when the completion of the line from Pozo Ancho to Salidos (referred to in Mr. Tonkin's carriage report) is effected. The dividend of 6s. 81, per share which the directors have declared, payable on Oct. 13 next, is the same in amount as that paid on the last two occasions, and after adding 500/. to the reserve (und—which now amounts to 7883/. 8s. 11d.—a balance is carried forward to the credit of profit and loss of 631/. 1/s. 9d. The whole of the reserved fund, with the exception of the 500/. now added, is invested in 3 per cent. Consols.

The CHAIRMAN said that as the circumstances respecting the working of the compuny were very satisfactory it was not necessary for

ing of the company were very satisfactory it was not necessary for him to say much on the subject. It was, indeed, extremely satisfactory that, notwithstanding the depression in trade generally, and the falling price of lead, they were still enabled to pay the same amount falling price of lead, they were still enabled to pay the same amount of dividend as in the past two half-years. It cometimes happened that a time of adversity was necessary to induce economies in the working of companies, but he was happy to say that in this company they had not waited for that, but during the time of their prosperity they had instituted economies, in which they had been assisted by the worthy manager, so that in spite of the low price of lead, and the depression in trade, they were enabled to give the same dividend as heretofore, which was at the rate of 33 per cent, on the original capital. If they could do so well at the present time they might feel perfectly satisfied that they would not be worse off, and they might hope to be better. Therefore, he thought all their prospects were in the ascendunt, and they had every reason to be content with their prospects and their profits. They were enabled to pay a handsome dividend, leaving still a good margin of profit for the future to draw upon if necessary. The reserve now amounted to 7785L, the whole of which, except the last 500C, which was added, had been invested in Three per Cents, and he might say they had not had occasion to draw one farthing

and he might say they had not had occasion to draw one farthing from the reserve since it was invested. In conclusion, the Chairman moved the adoption of the report and accounts.

Mr. RICHARD TAYLOR, in seconding the resolution, said that very few remarks were required from him. Any detail with regard to the mine would be better given by Mr. Tonkin. The progress during the whole of the part half year had given the directors entire satisfaction, and had added to the confidence they had in this being recorded as conventional to the confidence they had in this being not only a very profitable mine, but a very lasting mine, or rather mines, because there were four of them. They were all in good condition, and all promised to continue so.

good condition, and all promised to continue so.

Mr. Tonkin said he would make one or two remarks with regard
to their present condition and future prospects. The lodes were
not very rich as a rule, but in many places were remarkably continuous. In the Salido-, where the lode was small, it was working down, and the 120 fathom level was now got under the same
course of ore which they had in the upper levels, and promised to
throw open a great length of very rich ore ground. The Gradiosa
eastern extremity was not so good as on the former occasion, but
there was a long run of ground from the engine-shaft to the boundary.
If they turned to the old mine they had resumed driving the bott in
levels and the western levels were getting into paying ground. levels, and the western levels were getting into paying ground, which could be taken away at a profit and comparatively easy for driving, and from that they had a caunter lode. An important section was that of San Pedro, where the ground was drained by water, so they were increa-ing their reserves in the mine, which was a very important and favourable feature. He looked forward to being able to keep up the present returns of ore, and if they could get a good price for it in London he thought they would go on making as good profits as now. The machinery was in fine condition and they had an engine which compared with any engine in any mine in England, and we pring were enough to keep accepting in good order and we and no pains were spired to keep everything in good order, and no cost had been spared in having good machinery sent out from England.—The report was then adopted.

A vote of thanks was then passed to the Chairman and directors, to the manager, and to Mr. Swaifield, and the meeting broke up.

#### ALAMILLOS MINING COMPANY.

The half-yearly general meeting of shareholders was held at the offices of the company, Queen-street-place, on Thursday,

Mr. JOHN PHILLIPS JUDD in the chair.
Mr. HENRY SWAFFIELD (the secretary) read the motice calling

Mr. HENRY SWAFFIELD (the setrotary) road the meeting.

The directors, in their report, said that they would have been glad to have submitted a more satisfactory statement of accounts, but small as the gross profits on the mining had been they exceeded those of the previous year. The figures stood thus:—Profit to June 39, 1877, 1898/. 188. 94.; and profit to December 31, 1876, 1592/. 68, 34., showing an increase for the past year of 3 8/. 12s. 64. Although several of the levels continued poor there were others of considerable promise. The reserves of one were at the present time estimated at 2100 tons. The company's produce had continued to meet with a ready sale, although at greatly reduced prices, compared with those which were obtained during the previous six months. An increased demand had lately been experienced for desilverised lead; it was, therefore, fortunate that the company's desilverising works at Cordova were capable of meeting this demand, and of turning out a still further quantity if acaded. The balance standing at the credit of profit and loss—2006/. 13s. 44. ed of 1s. per share, absorbing 17:0/, and to rry forward 256/. 13s. 7d. to next account.

The CHAIRMAN said he had very few observations to make upor

the present occasion. The result of the last six months' working had not been so satisfactory as the directors could wish, but he saw nothing to make the shareholders at all desponding in the matter The result of the last six months' working as there were many of the levels which were most promising. It would be presumptums on his part, in the presence of Mr. Tonkin. to make any observations upon the state of the mine, or its future prospects, because that gentleman would be glad to give them information on those points. In conclusion, the Chairman formally

rmation on those points. In conclusion, the Chairman formally oved the adoption of the report and accounts. Mr. J. Taylon seconded the resolution. He said that 12 months ago the mine looked well, and in another 12 months would pro-bably look well again. Great explorations were going on. Nothing could better show the confidence which was felt in the mine than the fact that Mr. Tonkin held a great number of shares, and had never sold one, and there were other gentlemen who held consider-able numbers, and had full confidence in the explorations which were now going on. The mines were not deep, but were admirably supplied with machinery. The railway would shortly be extended to cose up to the mine, so that the carriage of ore would come cheaper. The directors were satisfied that although the mine was not rich, and the present price of lead against them, still they hoped the com-pany would be carried on at a profit to the shareholders, and be kept in a state of efficiency, whatever might happen with respect to the price of lead to the price of lead.

Mr. Tonkin, in answer to a question, said there had been a re

Mr. Tonain, in answer to a question, see that one as compared duction of about 2s. 6d. per ton in the cartage of lead, as compared with seven years ago. He went on to say that the mine had now reached a depth of 100 fms., and the lode in that depth was very

large, and sometimes productive to the amount of 1 or 1½ ton large, and sometimes productive to the amount of 1 or 12 ton they had not yet got under where the lode was passed in the lover it; therefore, although they had 18 months of not very excitons, yet they had now got under points where it was like improve, judging from what it was in the upper levels. The 10 level, east of Taylor's shaft, had passed through a cross-course in the east he expected it had become more productive. Fur west they would get under some orge ground, so there was a west they would get under some orge per months and trey must the bring down the expenses; if so, it would relieve the mins they would not have to take out ore at a dissedance. Wit spect to the 85, west of the shaft, there was no other level was than the 55, so there they were driving through untried ground only about a month since they opened up ground with 4 to fattom; but now they were passing through a cross-curse, but level was the production of the shaft o

the report.

A SHAREHOLDER: What will be the average raisings for the six months?——Mr. Tonkin said about 165 tons per month, might not do much the next six months, but after that he end to see an improvement. In the 50, at Cox's shaft, there is looke almost as good as they had at the Madelaina some years a The report was then adopted.

ble almost as good as they had at the Bladelana some years.
The report was then adopted.
On the motion of a Sharkholder a cordial vots of thanks
assed to the Chairman, directors, Mr. Tonkin, Mr. Shaw, an
fficers.——The Chairman acknowledged the compliment

passed to the Unarman. The Chairman acknowledged the compliment of officers. — The Chairman acknowledged the compliment of part of the board.

Mr. Richard Taylor said he rose to express the feelings he was sure Mr. Shaw would entertain if he were awars of the He might say he had particularly had to follow very close Shaw's operations, and he could a sure them that hey had Shaw a most invaluable agent, and one who studied with the diligence to improve the process of shelting, and make the diligence to improve the process of shelting. He was an age down establishment as successful as possible. He was an age dova establishment as successful as possible, itchly deserved the thanks of the shareholders. roke up.

#### PORT NIGEL LEAD COMPANY.

The third ordinary general meeting of shareholders was he the offices of the company, Union-court, Old Broad-street, on The Major Ellis J. Charter in the chira. The Secretary having read the notice convening the meeting of August) which, together with the report from the means a precious and adopted unanimously.

end of August) which, together with the report from the may was received an i adopted unanimously.

In view of the highly encouraging prospects held out in the report—the reserves of lead ore immediately available on the ings being resumed, and the recent important discoveries at Bwlch Mine, in the same locality—the meeting decided to the mediate steps to raise the capital required to ever the new pumping machinery, and accordingly instructed the sects communicate forthwith with those shareholders who have a subscribed for the purpose raused. beeribed for the purpose rained.

Mojor Charter having retired from the direction by rota

Major Charter having retired from the direction by rotal unanimously re-elected to the boarl, and received a vote of in recognition of his services as Chairman of the company. On Manley, the agent, concludes a most exhaustive report by a "I never saw the prospects of the mine so cheering as at the time, pended operations. Taking into consideration how the tode has immented to the 5tfm. level, the quantity of lead one solid (41 toda), and he now open in the mine at the present depth, my opinion (which is supported to the present depth, my opinion (which is supported to the present depth, my opinion (which is supported to the present depth, my opinion (which is supported to the present depth, my opinion (which is supported to the present depth, my opinion (which is supported to the present depth, my opinion (which is supported to the present depth, my opinion (which is supported to the present depth, my opinion (which is supported to the present depth, my opinion (which is supported to the present depth).

SOUTH FRANCES.—A four-monthly meeting of adventues hell at the mine, on Wednesday. Mr. Samuel Abbott (the pread the accounts, from which it appeared that the profit of four months' working was 2012. 14s. 8d. Capt A. T. Jammanaging agent, in his report said:—"We have sold during the weeks nearly 100 tons of timore, at an average price of about 38 per lowest price we ever remember: but this quantity, although large, does sent the full quantity raised in the same period, as we have now from its of undressed tin on the stamps floors. We are pleased to say the noise to look well, and will, with a better price for tin and a good drawing the the management of the mine the salary he received was 15 guines per mately do well."—Capt. James reminded the shareholders that when he afterwards reduced it, unsolicited, to 9 guineas. At that salary he regulated in the fine salary has the reduced his salary without self, he did not propose to increase it without their consent, but if he should not care to take less than 12 guineas per month. He left it, but the shareholders to decide.—Mr. Nicholl thought every man should be if or the work that he did, and moved that the slary of Capt James to 12 guineas a month—The motion was seconded by Mr. Williams, my the Chairman, and carried unanimously.

#### Registration of New Companies,

The following joint-stock companies have been duly regi

The following Joint-Stock companies have been duly regaNANNERCH LEAD MINING COMPANY (Limited).—Capital 1,500
chares. To work for lead and copper ore and other minerals in the garcement whereby Rajob Carr and A. N. Fraser, on behalf of the congatoper processes from Coultas Dodaworth his interest in the said property. Seribers (who take 100 shares each are Rajob Carr, 18, Orsestee Selate merchant; M. Maughan, Grove-street, Newcastle, builder; Colsiaworth, Toftshouse, Haydon Bridger, mining engineer; A. N. Fraser, 718 foundry agent; Robert Gordon, Ashfiel t-terrice, Newcastle, howe again.

Robon, Newcastle, contractor; William Middlemass, Newcastle, breef the directors are—Mears, Robert Gordon, W. Middlemass, 5. W. Ralph Carr, C. Dodaworth, A. N. Fraser, G. Robson, and T. Davisse, the ration being 100 shares.

Raiph Carr, C. Dodaworth, A. N. Fraser, G. Robson, and T. Davisos, cation being 100 shares.

FELIX LEAD MINING COMPANY (Limited).—Capital 6004,1.

To work the Catherine and Jane Mine, at Lindewsy, Lindothes, as Merineth, for the unexpired term of a certain indenture of lane my Catherine Richards and Jane Richards, of the one part, and 8. will bishopsyate-street, of the other part. The userthers (who take one are—John Peirson, 2. Gresham Buildings, accountant: J. W. Bo Swansea-place, South Kensington; J. P. Goodwar, 33, Throgmotomerchant: Arthur Howlett, Bedford-street, Covent Garden; J. B. Buildings; A. F. Sleeman, 159, Lebbury road, Bayswater; P. Cooper, ink manufacturer. This company is registered without articles. NORTH CHESHIRE LAND COMPANY (Limited)—Capital, 28 shares. To carry on the general business of a land company. The who take 20 shares cach) are—H. Sp-Iman, South Johnstret, Livithout, Grat George-street, Liverpool: Joseph Walmsley, Bo Seacombe; W. Parle, Lord-street, Liverpool: Joseph Walmsley, Bo Seacombe; W. Parle, Lord-street, Liverpool: U. H. Collins, Vistor Renderd, and Catherda, Capital 100,00 l, in 100.

quire the basiness of Mesers. Wells and Galloway acturers, of Widnes. The subscribers are—G. J. W. wood, 5: James Galloway, Prescot, 5: J. Rawson, 6. m. Kensington, Liverpool, 5: A. T. Galloway, Prescot, 5: J. Rawson, 6. m. Kensington, Liverpool, 5: A. T. Galloway, Prescuth Castle street, Liverpool, 2: F. L. Cattrall, May LONDON DISTRICT ESTATES COM PANY LIVER and Company. The subscriber each, Ballam, 26; James Beed, 20, Regent street reach, 19: The Company of the Co enhead.

WELLS AND GALLOWAY (Limited),—Capital 100,00 L

quire the business of Messrs. Wells and Galloway, chemic neet, Kilburn, 5: A. H. Petil, Rose, 18. W.; J. K.-yworth, 20. and 25: row, 1; W. S. Biffin, 3, Engle pines, 8. W.; J. K.-yworth, 20. PIERI RIFLE COMPANY (Limited).—Capital 40,000.; H. PIERI RIFLE COMPANY (Limited).—Capital 40,000.; H. and a size and the pines are an experience of the pines are an experience of the pines and a size and a s

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AT LEEDS, MANCHESTER, AND WREXHAM EXHIBITIONS, 1875 AND 1876.

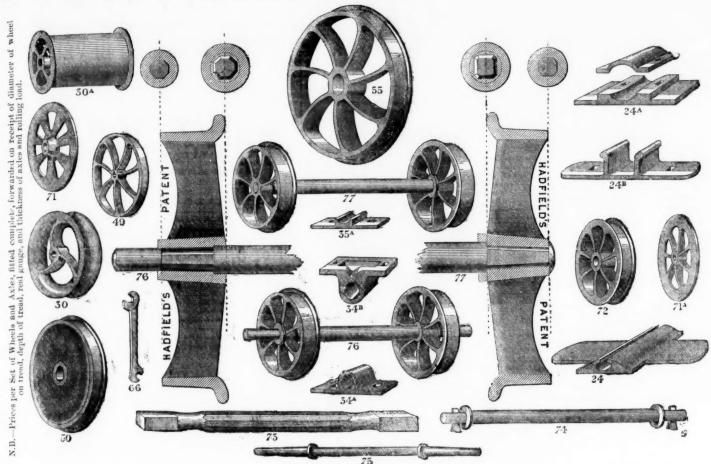
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(see of our departments is specially adapted for the manufacture of these Wheels (as shown below), for Collieries, Ironstone Mines, State Quarries, Ironworks, Lead Mines, &c., &c. We have the form of the manufacture of these Wheels (as shown below), for Collieries, Ironstone Mines, State Quarries, Ironworks, Lead Mines, &c., &c. We have the form of the manufacture of these wheels are now making, many HUNDRED THOUSANDS; and having Patented a New Method of Fitting Wheels upon axles, being cheap, effective, and expeditious, we can execute orders are the fitting wheels per week.



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The advantages of the above system are that the Wheels being forced upon a Taper Square-ended Axle, by Machinery, and then riveted (the machine securing truth), it is impossible that by can come loose or get within gauge. They are very cheaply fitted on, and run exceedingly true.

We construct the Arms of wheels upon the curved principle (as shown in the drawings above), consequently the shrinkage or cooling of the Castings is not interfered with, thus securing be greatest advantages of our very strong material.

the considered the Arms of wheels upon the curved principles (as shown in the drawings above), consequently the satisfactory the satisfactory the satisfactory that the curved principles (as shown in the drawings above), consequently the satisfactory that satisfactory the satisfactory the satisfactory the satisfactory that satisfactory the satisfactory

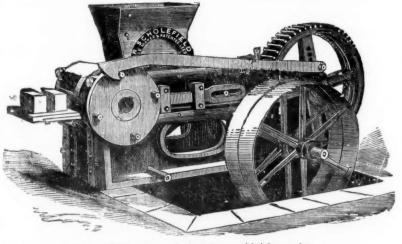
wsource of Potash Salts.—The great commercial imported the pota-h industry since the memorable discoveries of similation of considerable interest to the mercantile and manufactwomunity, and also to agriculturists with whom potash salts in considerable interest to the mercantile and manufactwomunity, and also to agriculturists with whom potash salts in considerable demand, as a valuable ingredient of compound that manufactwomunity, and also to agriculturists with whom potash salts in considerable demand, as a valuable ingredient of compound that manufactwomen is the sold of potash was practically derived from wood-ashes, and its liations, owing to its expense, were necessarily limited. For its part of the great salt is a state of the salt of distribution of the control of the c ars to come. Among the chief commercial shand the chloride, bromide, and iodide of potassium. Some a other of these various products are used either directly or saily in the manufactures of soap, glass, saltpetre, alum. the shand colours; for cotton printing, washing, spinning, dyeing ding, &c.; for numberless metallurgical, preserving, purifying. Respitating purposes; and, lastly, to an enormous extent, both wind showed, for manure. Indeed, p. tash may be said to be utiliasme way or other in most modern industries, and its technical saions bid fair to increase with the cheapness of its supply. ons bid fair to increase with the cheapness of its supply.

anies, duly regist

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WAYSOINTMENT.—Sores, wounds, ulcerations, and other distressing of the skin, are amenable to this cooling and healing unguent. It has the loadest praise from persons who have suffered for years from bad been, and elronic ulcers, after every hope of cure had long passed away. It was the large experienced the soothing effect of this ointment can form the content it bestows by restraining inflammation and allaying painthen experienced that the sound is a sealing that the search worth, and the experienced for, as the cusiest and safest remedy for all ulcerous to remark the same application, properly to conduct the first way to be searched the same application, properly to conduct the same application.

# R!. SCHOLEFIELD'S PATENT BRICK-MAKING MACHINE.



R.S. begs to call the attention of all Colliery Owners in particular to his PATENT SEMI-DRY BRICK MACHINE, and the economical method of making bricks by his patent machinery from the refuse that is taken from the Lite during the process of coal-gettin ; which, instead of storing at the pail's mouth (and making acres of vul able land useless), is at once made into bricks at a very small cost, by R. S.'s Patent Brick-making Machinery. If the material is got from the pit hill the following is about the cost of

production, and the hands required to make 10,000 pressed bricks per day:-

2 men digging, each 4s, per day
1 man geinding, 4s, 6d, per day
1 man geinding, 4s, 6d, per day
1 by taking off bricks from unachine, and placing them in barrow ready for the kiin, 2s, pe
1 by greasing, 1s, 6d, per day
1 origine man, 5s, per day
1 man wheeling bricks from machine to kiin, 4s, per day 20 8 9
achine, and placing them in barrow ready for the kiin, 2s. per day ... ... 0 2 0
0 1 6

Total cost of making 10,000 pressed bricks ... ... ... ... ... ... ... ... ... £1 5 0, or 2z. 6d. per 1000.

(SETTING AND BURNING SAME PRICE AS HAND-MADE BRICKS.)

N.B.—Where the material can be used as it comes from the pit, the cost will be reduced in digging.

As the above Machinery is particularly adapted for the using up of shale, bind, &c., it will be to the advantage of all Colliery Owners to adopt the use of the said Brick-making Machinery.

THE MACHINES CAN BE SEEN IN OPERATION AT THE WORKS OF THE SOLE MAKER AND PATENTEE DAILY.

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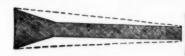
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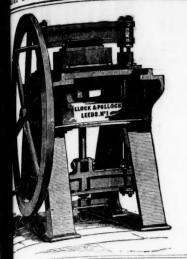
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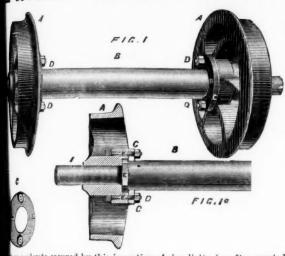
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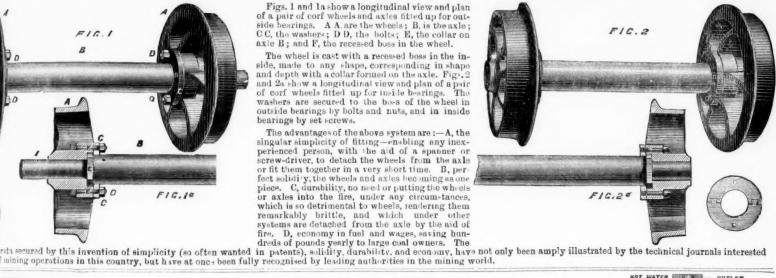
Patent Method of Fitting up Cast Steel Wheels and Axles.



Figs. 1 and lashow a longitudinal view and plan of a pair of corf wheels and axles fitted up for outside bearings. A A are the wheels; B is the axle; C C, the washers; D D, the bolts; E, the collar on axle B; and F, the recessed boss in the wheel.

The wheel is cast with a recessed boss in the wheel.

The wheel is cast with a recessed boss in the inside, made to any shape, corresponding in shape and depth with a collar formed on the axle. Fig. 2 and 2a show a longitudinal view and plan of a pair of corf wheels fitted up for inside bearings. The washers are secured to the boss of the wheel in outside bearings by bolts and nuts, and in inside bearings by set screws.



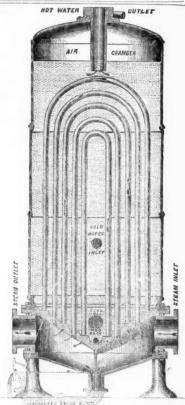
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81, with detail information, is now ready, and will be sent on application, together with an Illustrated Catalogue, with references and testimonials from Firms using Two HUNTHIPP of the Information, is now ready, and will be sent on application, together with an Illustrated Catalogue, with references and testimonials from Firms using Two HUNTHIPP of the Information of the

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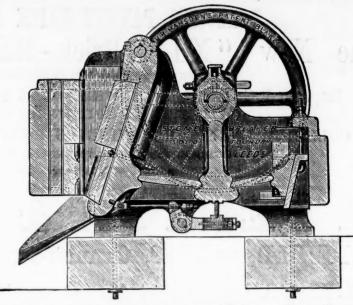
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H. R. Marsden, Esq.

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